

West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin III
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
Columbian Chemicals Company
Marshall Plant/Proctor
R30-05100019-2006

John A. Benedict
Director

Issued: February 1, 2006 • Effective: February 15, 2006

Expiration: February 1, 2011 • Renewal: August 1, 2010

Permit Number: **R30-05100019-2006**
Permittee: **Columbian Chemicals Company**
Facility Name: Marshall Plant
Mailing Address: WV Route 2
Box 229
Proctor, WV 26055

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Proctor, Marshall County, West Virginia
Mailing Address:	N/A
Telephone Number:	(304) 845-4100
Type of Business Entity:	Corporation
Facility Description:	Facility manufactures Carbon Black
SIC Codes:	2895
UTM Coordinates:	515.155 km Easting • 4405.006 km Northing • Zone 17

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0. Emission Units

Unit No.	Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device	Control Device ID No.
Carbon Black Production Equipment (Table A.1(a) of R13-2607)							
1	Reactor 11 (Coast # 11)	51 ⁽¹⁾ , 52 ⁽¹⁾ , 48 ⁽¹⁾	Unit 11A Reactor Vent (Coast), Unit 11B Reactor Vent (Coast),	1970	8.3 MMBtu/hr	None	n/a
		n/a	Unit 1 Bag Collector Coast			Unit 1 Bag Collector ⁽³⁾	U1BAGCOLL
1	Reactor 12 (Coast # 12)	53 ⁽¹⁾ , 54 ⁽¹⁾ , 48 ⁽¹⁾	Unit 12A Reactor Vent (Coast), Unit 12B Reactor Vent (Coast),	1970	8.3 MMBtu/hr	None	n/a
		n/a	Unit 1 Bag Collector Coast			Unit 1 Bag Collector ⁽³⁾	U1BAGCOLL
1	U1BAGCOLL	67 ⁽²⁾ , 1A ⁽²⁾	Unit 1 Bag Collector (Coast)	1970	3.54 tons/hr	Flare, Tail Gas Boiler, Product Dryers	Flare, TGB, Dryer (11, 12, 21, 22, 31, 32, 41, 42)
1	U1CONV	8	Unit 1, Air Conveying	1970	2.06 tons/hr	Unit 1 Air Conveying Bag Filter	U1CONV BF
1	U1REJ	7	Unit 1, Reject Carbon Black Air Conveying	1970	0.20 tons/hr	Unit 1 Reject Air Conveying Bag Filter	U1REJ BF
1	Dryer 11	1A	Dryer, Bartlett Snow Company	1970	4 MMBtu/hr	None	n/a
		3				Unit 1 Vapor Bag Collector – 2.06 tons/hr	U1VAP
1	Dryer 12	1A	Dryer	1970	4 MMBtu/hr	None	n/a
		3				Unit 1 Vapor Bag Collector	U1VAP
2	Reactor 21	57 ⁽¹⁾ , 58 ⁽¹⁾ , 49 ⁽¹⁾	Unit 21A Reactor Vent (Coast), Unit 21B Reactor Vent (Coast),	1970	8.3 MMBtu/hr	None	n/a
		n/a	Unit 2 Bag Collector Coast			Unit 2 Bag Collector ⁽³⁾	U2BAGCOLL
2	Reactor 22	55 ⁽¹⁾ , 56 ⁽¹⁾ , 49 ⁽¹⁾	Unit 22A Reactor Vent (Coast), Unit 22B Reactor Vent (Coast),	1970	8.3 MMBtu/hr	None	n/a
		n/a	Unit 2 Bag Collector Coast			Unit 2 Bag Collector ⁽³⁾	U2BAGCOLL
2	U2BAGCOLL	67 ⁽²⁾ , 1A ⁽²⁾	Unit 2 Bag Collector (Coast)	1970	3.54 tons/hr	Flare, Tail Gas Boiler, Product Dryers	Flare, TGB, Dryer (11, 12, 21, 22, 31, 32, 41, 42)
2	U2CONV	6	Unit 2, Air Conveying	1970	2 tons/hr	Unit 2 Air Conveying Bag Filter	U2CONV BF
2	U2REJ	5	Unit 2, Reject Carbon Black Air Conveying	1970	0.20 tons/hr	Unit 2 Reject Air Conveying Bag Filter	U2REJ BF

Unit No.	Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device	Control Device ID No.
2	Dryer 21	1A	Dryer	1970	4.0 MM Btu/hr	None	n/a
		4				Unit 2 Vapor Bag Collector	U2VAP
2	Dryer 22	1A	Dryer	1970	4.0 MM Btu/hr	None	n/a
		4				Unit 2 Vapor Bag Collector	U2VAP
3	Reactor 3	46 ⁽¹⁾ , 59 ⁽¹⁾ , 12 ⁽¹⁾	Unit 3A Reactor Vent (Coast), Unit 3B Reactor Vent (Coast), Unit 3 Coast	1970	12.5 MM Btu/hr	None	n/a
		n/a				Unit 3 Bag Collector ⁽³⁾	U3BAGCOLL
3	U3BAGCOLL	67 ⁽²⁾ , 1A ⁽²⁾	Bag Collector – Ford, Beacon & Davis	1970	4.52 tons/hr	Flare, Tail Gas Boiler, Product Dryers	Flare, TGB, Dryer (11, 12, 21, 22, 31, 32, 41, 42)
3	U3REJ	16	Unit 3, Reject Carbon Black Air Conveying	1970	0.42 tons/hr	Unit 3 Reject Air Conveying Bag Filter	U3REJ BF
3	Dryer 3A	1A	Unit 3 Dryer 3A	1970	6.8 MM Btu/hr	None	n/a
		14				Unit 3 Vapor Bag Collector	U3VAP
3	Dryer 3B	1A	Unit 3 Dryer 3B	1970	6.8 MM Btu/hr	None	n/a
		14				Unit 3 Vapor Bag Collector	U3VAP
4	Reactor 4	47 ⁽¹⁾ , 60 ⁽¹⁾ , 13 ⁽¹⁾	Unit 4 Reactor Vent (Coast), Unit 4B Reactor Vent (Coast), Unit 4 Coast	1970	12.5 MM Btu/hr	None	n/a
		n/a				Unit 4 Bag Collector ⁽³⁾	U4BAGCOLL
4	U4BAGCOLL	67 ⁽²⁾ , 1A ⁽²⁾	Unit 4 Bag Collector (Coast)	1970	4.52 tons/hr	Flare, Tail Gas Boiler, Product Dryers	Flare, TGB, Dryer (11, 12, 21, 22, 31, 32, 41, 42)
4	U4REJ	16	Unit 4, Reject Carbon Black Air Conveying	1970	0.45 tons/hr	Unit 4 Reject Air Conveying Bag Filter	U4REJ BF
4	Dryer 4A	1A	Unit 4 Dryer 4A	1970	6.8 MM Btu/hr	None	n/a
		15				Unit 4 Vapor Bag Collector	U4VAP

Unit No.	Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device	Control Device ID No.
4	Dryer 4B	1A	Unit 4 Dryer 4B	1970	6.8 MM Btu/hr	None	n/a
		15				Unit 4 Vapor Bag Collector	U4VAP
(1) Emission point numbers 46-47 and 51-60 are stacks that natural gas combustion emission vents during periods of reactor warmup. Emission point numbers 48-49 and 12-13 are stacks that emit natural gas combustion emissions during times of reactor coasting. (2) All tail-gas combustion emissions from Tail Gas Boiler (TGB) and Product Dryers are collected in a header and vented to emission point number 1A. The Flare emission point is emission point number 67. (3) Although the Unit Bag Collectors are technically considered process manufacturing equipment, they are listed under control devices in this table as their collection efficiency is a determining factor in particulate emissions from the flare.							
Carbon Black Product Handling Equipment/Process (Table A.2(a) of R13-2607)							
1	U1REJ	7	Unit 1 Reject Carbon Black Air Conveying Bag Filter	1970	0.20 tons/hr	Unit 1 Reject Carbon Black Air Conveying Bag Filter	U1REJ BF
1	U1CONV	8	Unit 1 Air Conveying Bag Filter	1970	2.06 tons/hr	Unit 1 Air Conveying Bag Filter	U1CONVBF
1	U1Screen	9	Unit 1 Screen – Tyler Screen	1970	2 Tons/hr	Unit 1 Screen Bag Filter	U1SCRNBF
2	U2REJ	5	Unit 2 Reject Carbon Black Air Conveying Bag Filter	1970	0.20 tons/hr	Unit 2 Reject Carbon Black Air Conveying Bag Filter	U2REJ BF
2	U2CONV	6	Unit 2 Air Conveying Bag Filter	1970	2.00 tons/hr	Unit 2 Air Conveying Bag Filter	U2CONVBF
2	U2Screen	10	Unit 2 Screen Bag – Tyler Screen	1970	4.16 Tons/hr	Unit 2 Screen Bag Filter	U2SCRNBF
3	U3REJ	16	Unit 3 Reject Carbon Black Air Pulse Filter	1970	5.23 tons/hr	Unit 3 Reject Carbon Black Air Pulse Filter	U3REJ BF
3	U3Screen	16	Unit 3 Reject Carbon Black Air Pulse Filter	1970	0.52 tons/hr	Unit 3 Reject Carbon Black Air Pulse Filter	U3REJ BF
4	U4REJ	17	Unit 4 Reject Carbon Black Air Pulse Filter	1970	0.52 tons/hr	Unit 4 Reject Carbon Black Air Pulse Filter	U4CREJ BF

Unit No.	Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device	Control Device ID No.
4	U4Screen	17	Unit 4 Reject Carbon Black Air Pulse Filter	1970	5.23 tons/hr	Unit 4 Reject Carbon Black Air Pulse Filter	U4CREJ BF
1,2,3,4	HOPLOAD	18	Hopper Car Loading Bag Filter	1970	6.73 tons/hr	Hopper Car Loading Bag Filter	HOPBF
1,2,3,4	PACKTK	11	Packer Vent Bag Filter	1970	0.75 tons/hr	Packer Vent Bag Filter	PACKBF
1,2,3,4	WHBEAD	50	Beading Area Bag Filter	1970	?	Beading Area Bag Filter	BEADBF
1,2,3,4	SPECPACK	68	Specialty Packer Bag Filter	1970	?	Specialty Packer Bag Filter	SPECPKBF
Boiler Specifications (Table A.3(a) of R13-2607)							
N/A	Boiler # 1	19	Eclipse Boiler – Model No. SEMDPRO	1970	21 MMBtu/Hr	N/A	N/A
N/A	Boiler # 2	32	Continental Boiler Company	1970	10 MMBtu/Hr	N/A	N/A
N/A	TGB	1A	Not Installed	N/A	20 MMBtu/Hr	N/A	N/A
Storage Tank Specifications (Table A.4(a) of R13-2607)							
N/A	Stortank 1	43	Feedstock	1970	1,500,000 gallons	N/A	N/A
N/A	Stortank 2	42	Feedstock	1970	1,500,000 gallons	N/A	N/A
N/A	Stortank 3	41	Feedstock	1970	1,500,000 gallons	N/A	N/A
N/A	Stortank 4	40	Feedstock	1970	1,500,000 gallons	N/A	N/A
N/A	Packertank	11	Surge Tank	1996	0.75 tons/hr	N/A	N/A
N/A	U1DENSE	8	Unit 1 Dense Tank	1970	2.06 tons/hr	N/A	N/A
N/A	U2DENSE	6	Unit 2 Dense Tank	1970	2.00 tons/hr	N/A	N/A
N/A	U3DENSE	16	Unit 3 Dense Tank	1970	4.17 tons/hr	N/A	N/A
N/A	U4DENSE	17	Unit 4 Dense Tank	1970	4.49 tons/hr	N/A	N/A

Unit No.	Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device	Control Device ID No.
Oil Heater Specifications (Table A.5(a) of R13-2607)							
N/A	Oil Htr A	45A	Black, Sivallis & Bryson	1970	4 MMBtu/Hr	N/A	N/A
N/A	Oil Htr B	45B	Black, Sivallis & Bryson	1970	4 MMBtu/Hr	N/A	N/A

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source
CBI	Confidential Business Information		Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations		
CO	Carbon Monoxide	pph	Pounds per Hour
C.S.R. or CSR	Codes of State Rules	ppm	Parts per Million
DAQ	Division of Air Quality	PSD	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	psi	Pounds per Square Inch
FOIA	Freedom of Information Act	SIC	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower		
lbs/hr or lb/hr	Pounds per Hour	SO₂	Sulfur Dioxide
LDAR	Leak Detection and Repair	TAP	Toxic Air Pollutant
M	Thousand	TPY	Tons per Year
MACT	Maximum Achievable Control Technology	TRS	Total Reduced Sulfur
		TSP	Total Suspended Particulate
MM	Million		
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	USEPA	United States Environmental Protection Agency
MMCF/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA	Not Applicable	UTM	Universal Transverse Mercator
NAAQS	National Ambient Air Quality Standards	VEE	Visual Emissions Evaluation
NESHAPS	National Emissions Standards for Hazardous Air Pollutants	VOC	Volatile Organic Compounds
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c. **[45CSR§30-5.1.b.]**
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration. **[45CSR§30-4.1.a.3.]**
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3. **[45CSR§30-6.3.b.]**
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. **[45CSR§30-6.3.c.]**

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. **[45CSR§30-5.1.f.3.]**

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
 - a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements. **[45CSR§30-6.6.a.]**

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution Control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included

and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1 and 45CSR13, R13-2607, B.1]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2 and 45CSR13, R13-2607, B.1]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.
[40 C.F.R. 61 and 45CSR15]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.
[40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

- 3.1.9. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity	Factor F
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

[45CSR§6-4.1 and 45CSR13, R13-2607, B.1, B.4.] [Flare]

- 3.1.10. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR§6-4.3 and 45CSR13, R13-2607, B.1] [Flare]
- 3.1.11. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2 (Section 3.1.12 of this permit).
[45CSR§7-3.1 and 45CSR13, R13-2607, B.1, B.5.] [1A, 67, 3-8, 12-18, 26, 60, 47-58]
- 3.1.12. The provisions of subsection 3.1 (Section 3.1.11 of this permit) shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2 and 45CSR13, R13-2607, B.1, B.5.] [1A, 67, 3-8, 12-18, 26, 60, 47-58]
- 3.1.13. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.
[45CSR§7-4.1 and 45CSR13, R13-2607, B.1 B.5.] [1A, 67, 3-8, 12-18, 26, 60, 47-58]
Meeting the PM limits in Appendix A of the permit will show compliance with this Section.
- 3.1.14. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1 and 45CSR13, R13-2607, B.1 B.5.]**

- 3.1.15. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
[45CSR§7-5.2 and 45CSR13, R13-2607, B.1 B.5.]
- 3.1.16. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a through 4.1.e.
[45CSR§10-4.1 and 45CSR13, R13-2607, B.1 B.6.] [1A, 12, 13, 19, 32, 46-49, 51-60]
Meeting the SO₂ limits in Appendix A of the permit will show compliance with this Section.
- 3.1.17. Compliance with the allowable sulfur dioxide concentration limitations from manufacturing process source operation(s) set forth in 45CSR10 shall be based on a block three (3) hour averaging time.
[45CSR§10-4.2 and 45CSR13, R13-2607, B.1 B.6.] [1A, 12, 13, 19, 32, 46-49, 51-60]
- 3.1.18. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.
[45CSR§10-5.1 and 45CSR13, R13-2607, B.1] [1A, 12, 13, 19, 32, 46-49, 51-60]
Note: This section will be void after the installation of flare and tail gas fired boiler/dryer. Please refer to Section 3.7.2 for explanation.
- 3.1.19. Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR§10-9.1 and 45CSR13, R13-2607, B.1 B.6.] [1A, 12, 13, 19, 32, 46-49, 51-60]
- 3.1.20. Within ninety (90) days of the issuance date of R13-2607 (issued January 13, 2005) t, the permittee shall develop and submit to the Director a plan to monitor the visible emissions from the tail gas combustion sources identified in this permit. Any compliance demonstrations thereto shall be in accordance, where applicable, with 45CSR7A and shall be subject to the approval of the Director. A copy of the approved plan shall be kept on-site and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-2607, A.6.h] [Please see attached 45CSR7 monitoring plan]
Note: Permittee has already submitted plan required in this section.
- 3.1.21. The permittee shall prepare and maintain an emission point map of the facility. This map shall consist of a diagram of the location and identification of all emission points listed under Appendix A of this permit. A legend shall be prepared with the map that identifies the emission point type and source(s) contributing to that emission point. This map shall be prepared within ninety (90) days of permit issuance and thereafter be updated as necessary to reflect current facility operations. The map(s) shall be retained on-site and be made available to the Director or his/her duly authorized representative

upon request.

[45CSR13, R13-2607, A.6.j]

Note: Permittee has already submitted map required in this section.

- 3.1.22. The permittee shall develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance performed on the combustion sources identified under **A.1** through **A.5** (Sections 4.0 to 8.0 of this permit) and their associated control technologies. These records need not include maintenance tasks that have no potential effect on emissions performance.
[45CSR13, R13-2607, A.6.k]

3.2. Monitoring Requirements

- 3.2.1. Operation of each of the particulate matter filters, as identified as “bag filters” and “bag collectors” under **A.1** (Section 4.0 of this permit) and **A.2** (Section 5.0 of this permit) shall be accordance with the following MRR requirements:

- (a) The permittee shall, at a minimum, follow all manufacturer’s recommendations with respect to the installation, operation, and maintenance of each particulate matter filter so as to guarantee the minimum control efficiency specified under **A.1(h)** (Section 4.1.8 of this permit) and **A.2(d)** (Section 5.1.4 of this permit).
- (b) The permittee shall, upon any observed visible emissions from a particulate matter filter, take the action specified below based on the applicable opacity range as observed from the particulate matter filter:

Opacity (%)	Action	Documentation
< 20	Within a reasonable period, take corrective action to eliminate the problem.	A.6(c)(3) (Section 3.2.1 (c) of this permit)
20-40	Perform Method 9 visual emission reading and take corrective action to eliminate the problem.	A.6(c)(3) (Section 3.2.1 (c) of this permit)
> 40	Cease operation of source(s) contributing to visible emissions, take corrective action prior to restarting	A.6(c)(3) (Section 3.2.1 (c) of this permit)

- (c) For each particulate matter filter, the permittee shall identify all days during which any visible particulate emissions were observed from the filter, describe the corrective actions taken to eliminate the visible particulate emissions, and, if applicable, record the results of the Method 9 test.

[45CSR13, R13-2607, A.6.c]

- 3.2.2. a) A visible emissions observation will be conducted at least once in a week. For any observation that records opacity greater than 20%, a full method 9 observation will be made. Observations and corrective action will be taken pursuant to table below. All personnel that conduct observations will have a current Method 9 certification.

Opacity (%)	Action	Documentation
< 20	Within a reasonable period, take corrective action to eliminate the problem.	Maintain record of weekly observations noting all days during which any visible

Opacity (%)	Action	Documentation
20-40	Perform Method 9 visual emission reading and take corrective action to eliminate the problem.	particulate emissions were observed, describe the corrective actions taken to eliminate the visible emissions, and if applicable, the results of the Method 9 Reading.
> 40	Cease operation of source(s) contributing to visible emissions, take corrective action prior to restarting	

[45CSR§30-5.1.c.] [Emission point I.D. Nos. 4,5-19,32,46,50,59,60,68]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13]

3.3.2. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify

and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§6-7.1 and 45CSR13, R13-2607, B.1 B.4]

- 3.3.3. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§7-8.1 and 45CSR13, R13-2607, B.1, B.5]

Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

[45CSR§7-4.12 and 45CSR13, R13-2607, B.1]

- 3.3.4. The permittee shall develop and submit to the Director a plan to conduct performance testing to verify the accuracy of the tail gas combustion emission factors and grade-specific ("tread" and "carcass") carbon black yields identified in permit application R13-2607. The plan shall include performance testing that shall be completed and submitted to the Director within 180 days of CCC's 40 CFR 63, Subpart YY compliance date. All performance testing and report submissions must be completed no later than October 16, 2006. The plan will be subject to approval by the Director.

[45CSR13, R13-2607, A.7.b] [Please see the Fact Sheet]

- 3.3.5. The sulfur content of the feedstock shall be determined according to the procedures and frequency as approved in a monitoring plan submitted pursuant to 45CSR§10-8.2(c).

[45CSR13, R13-2607, A.7.c]

- 3.3.6. Compliance with all annual emission and process limits set forth in this permit, unless otherwise specified, shall be based on a twelve (12) month rolling total. A twelve (12) month rolling total is the sum of the measured quantity for the previous twelve consecutive months.

[45CSR13, R13-2607, A.7.d]

- 3.3.7. Compliance with all hourly emission and process limits set forth in this permit, unless otherwise specified, shall be based on a block three (3) hour averaging time.

[45CSR13, R13-2607, A.7.e]

- 3.3.8. All tests required by Sections 3.3.4 to 3.3.7 & 4.3.1 of this permit shall be in accordance with section A.7(g), A.7(h), and A.7(i) (Section 3.3.9, 3.3.10 & 3.3.11 of this permit) below.

[45CSR13, R13-2607, A.7.f]

- 3.3.9. Tests that are required by the Director to determine compliance with any emission limitations set forth in this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at maximum permitted capacity (in the absence of limits on a piece of equipment, the testing shall be conducted at maximum design

capacity) unless otherwise approved by the Director in the protocol submitted under A.7(h) (Section 3.3.10 of this permit).

- (1) Tests to determine compliance with particulate emission limits shall be conducted, as applicable, in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A and EPA Method 201, 201A, and 202 as set forth in 40 CFR 51.
- (2) Tests to determine compliance with SO₂ emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 CFR 60, Appendix A.
- (3) Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 CFR 60, Appendix A.
- (4) Tests to determine compliance with NO_x emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 CFR 60, Appendix A.
- (5) Tests to determine compliance with VOC emission limits/control efficiencies shall be conducted in accordance with Method 18, Method 25, or 25A as set forth in 40 CFR 60, Appendix A.
- (6) Tests to determine compliance with speciated organic HAP emission limits shall be conducted in accordance with Method 18 as set forth in 40 CFR 60, Appendix A.

[45CSR13, R13-2607, A.7.g]

- 3.3.10. With regard to any testing required by the Director, the permittee shall submit to the Director a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received and approved by the Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.

[45CSR13, R13-2607, A.7.h]

- 3.3.11. With respect to any mandatory testing required under section A.7 (Sections 3.3.4 to 3.3.7 & 4.3.1 of this permit), the permittee shall conduct the tests within the mandatory schedule unless granted a variance from such schedule by the Director upon request from the permittee.

[45CSR13, R13-2607, A.7.i]

3.4. Recordkeeping Requirements – N/A

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and

maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B, 45CSR§2A-7.1.b and 45CSR13, R13-2607, B.1, B.3]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

- 3.4.4. The owner or operator of a fuel burning unit(s) shall maintain records of the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit as specified below:

7.1.a.1. For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis.

[45CSR§2A-7.1.a and 45CSR13, R13-2607, B.1, B.3]

- 3.4.5. For the purposes of determining compliance with maximum natural gas combustion throughput limits set forth in **A.3(a)** (Section 6.1.1 of this permit) and **A.5(a)** (Section 8.1.1 of this permit), the applicant shall maintain monthly and rolling twelve month records of the amount of natural gas that is combusted in the specified sources.

[45CSR13, R13-2607, A.6.f]

- 3.4.6. All records required in R13-2607 (Sections 3.1.20 to 22, 3.2.1, 3.4.5, 4.2.1 to 4.2.4, 7.4.1 of this permit) shall be maintained on-site for a period of at least five (5) years, be made available to the Director or his duly authorized representative upon request, and, when requested by the Director, certified as accurate on the form provided as Appendix C.

[45CSR13, R13-2607, A.6.m]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

[45CSR§30-5.1.c.3.E.]

- 3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of

Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. **[45CSR§30-8.]**
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: a) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, b) the date the permitted discovered that the source/ equipment/process was out of compliance, c) the date the Director was notified, d) the corrective measures to get the source/equipment/process back into compliance, and e) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein. **[45CSR§30-5.3.e; 45CSR13, R13-2607, A.6.i]**
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A, 45CSR13, R13-2607, A.6.i]**
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.
- 3.5.8. **Deviations.**
- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

- 3.6.1. N/A

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
 - a. 40 C.F.R. § 63 Subpart YY has no applicable requirements for Columbian Dryers and Boilers which burns tail gas.

40 C.F.R. § 63.1103(f) (MACT YY) states “the affected source for the carbon black production source category includes all waste management units, maintenance wastewater, and equipment components that contain or contact HAP that are associated with the carbon black production process unit”. As carbon black tail gas containing HAP is used as a fuel in the dryers/and or boilers, the dryers and boilers are affected sources in 40 C.F.R. § 63.1103(f) (MACT Subpart YY - Carbon Black Section). Table 8 to 40 C.F.R. § 63.1103(f) specifies requirements for the affected source. Table 8 to 40 C.F.R. § 63.1103(f) reads

“ If you own or operate a carbon black production main unit filter (MUF) process vent and if the HAP concentration of the emission stream is equal to or greater than 260 parts per million by volume Reduce emissions of HAP by....”.

Based on the above it is clear that Generic MACT is applicable to Columbian and specifically requires controls of HAP emissions from the main unit filter (MUF) process vents only. Process vent is defined in 40 C.F.R. § 63.1101. In the definition of process vents several types of gas stream discharges are excluded as process vents, this includes

“...Gas streams transferred for fuel value (i.e., net positive heating value), use, reuse, or sale for fuel value, use, or reuse;”.

As carbon black tail gas has a net positive heating value and is used as a fuel in the dryers/and or boilers, the tail gas streams used by the dryers and/or boilers are not process vent streams. Since the Carbon Black MACT has requirements only for process vents from the Main Unit Filter (MUF), then the Carbon Black MACT (40 C.F.R. § 63 Subpart YY) does not have requirements for dryers and boilers used at Columbian.

- b. 45CSR§10-5.1 prohibits the combustion of any “refinery process gas stream” that contains H₂S in excess of 50 grains for every 100 cubic feet of tail gas consumed. Tail gas consumed by the dryers and flares would be considered a “refinery process gas stream” under 45CSR10. CCC requested in R13-2607 application, pursuant to 45CSR§10-5.1 , that the requirement be waived. CCC stated that “Based on the installation of BACT and on the results of the dispersion modeling showing compliance with ambient standards, CCC is requesting a waiver from compliance with the 50 gr H₂S limit”. DAQ agreed that, in this specific case, the utilization of a BACT emission limit on the flares and tail gas-fired boilers/dryers is a more appropriate way to limit SO₂ emissions and qualifies as an “emission control and mitigation” plan under 45CSR§10-5.1.
- c. 40 C.F.R. § 63 Subpart DDDDD is not applicable to Columbian Dryers and Boilers which uses tail gas as fuel: 40 C.F.R. § 63.7491 (A section of Process Heater and Boiler MACT, 40 .F.R. § 63 Subpart DDDDD) states which boilers or process heaters are not subject to subpart DDDDD. 40 C.F.R. § 63.7491(l) states any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63 is excluded from subpart DDDDD. Dryers and Boilers which uses tail gas as fuel are affected sources under subpart YY, hence Dryers and Boilers which use tail gas as fuel are not subject to 40 C.F.R. § 63 Subpart DDDDD.
- d. The facility is not subject to Title IV of the Clean Air Act, therefore requirements of Section 2.25. "Acid Deposition Control" are not applicable and it is not required to certify compliance with them.

4.0. Source-Specific Requirements [Carbon Black production Requirements]

4.1. Limitations and Standards

4.1.1. The Columbian Marshall Facility shall consist of four carbon black production lines, identified as Unit 1, Unit 2, Unit 3, and Unit 4. The following table (Table A.1 (a) in Section 1.0 of this permit) identifies pollutant-emitting carbon black production equipment authorized to operate under this permit at the facility. In accordance with the information filed in Permit Application R13-2607, the equipment shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants and shall use the specified control devices.

[45CSR13, R13-2607, A.1.a]

4.1.2. The following table provides a list of dryer heaters authorized to operate at the subject facility by this permit. In accordance with the information filed in Permit Application R13-2607, and any amendments or revisions thereto, the dryers shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, shall combust only the specified fuels, and shall not exceed the specified maximum hours of operation.

Table A.1 (b): Dryer Heater Specifications

ID No.	MDHI (MMBtu/Hr)	Fuel	Control Device(s) ⁽¹⁾	Annual Hours of Operation
Dryer 11	20.00	Tail/ Natural Gas	None	8,760
Dryer 12	20.00	Tail/ Natural Gas	None	8,760
Dryer 21	20.00	Tail/ Natural Gas	None	8,760
Dryer 22	20.00	Tail/ Natural Gas	None	8,760
Dryer 31	20.00	Tail/ Natural Gas	None	8,760
Dryer 32	20.00	Tail/ Natural Gas	None	8,760
Dryer 41	20.00	Tail/ Natural Gas	None	8,760
Dryer 42	20.00	Tail/ Natural Gas	None	8,760

[45CSR13, R13-2607, A.1.b]

4.1.3. Production of carbon black at the Marshall Plant shall be subject to the following requirements:

- (a) The carbon black grades produced by the permittee at the Marshall Plant shall be limited to “tread” and “carcass.” The maximum hourly throughput of feedstock, as determined by a 3-hour block average, used to produce “tread” and “carcass” shall not exceed 11,974 pounds and 30,546 pounds, respectively.

- (b) The total throughput of feedstock used in the production of carbon black in each specified unit shall not exceed the limits in the following table:

Table A.1(c)(2): Per-Unit Feedstock Throughput Limits

Unit	Hourly Feedstock Throughput Limit (pounds) ⁽¹⁾
1	5,897
2	5,897
3	15,273
4	15,273

(1) As determined by 3-hour block average.

- (c) The permittee shall utilize feedstock oil that does not exceed the sulfur content per the following requirements:

- ii. The maximum hourly sulfur content limit, as determined on a three (3) hour block average, (S_{HL}) shall be determined by the following formula:

Table A.1(c)(ii): Feedstock Sulfur Content Limitations

Hourly Feedstock Oil Throughput Level (pounds) ⁽¹⁾	S_{HL} (%)
42,338	2.2
35,282 to 42,338	S_P ⁽²⁾
<35,282	2.5

(1) Aggregate throughput of all units.

(2) $S_P = 2.2 + 0.3 * ((42,338 - P_A) / 7,056)$; where P_A = facility-wide actual production for that 3 hour block.

[45CSR13, R13-2607, A.1.c]

- 4.1.4. Maximum hourly and annual emissions and emission concentrations (as applicable) from the operation of each source identified under **A.1(a)** (Section 4.1.1 of this permit) and **A.1(b)** (Section 4.1.2 of this permit), as emitted from the appropriate control device as applicable, shall not exceed those limits as specified in Appendix A.

[45CSR13, R13-2607, A.1.d]

- 4.1.5. With the exception of the “Exit Gas Parameters,” the emission point stack parameters of each source identified under **A.1(a)** (Section 4.1.1 of this permit) and **A.1(b)** (Section 4.1.2 of this permit) shall be in accordance with the specifications as given in Appendix B: The “Exit Gas Parameters” are reproductions of the data used in the air dispersion modeling and are not intended as maximum or minimum limitations and are presented for information purposes only.

[45CSR13, R13-2607, A.1.e]

- 4.1.6. All collected tail gas produced in each of the reactors not used as fuel for the dryer heaters and TGB shall be vented to the flare for destruction as indicated under **A.1(a)** (Section 4.1.1 of this permit). The flare shall be designed and operated in accordance with all applicable requirements of 40 C.F.R 63, Subpart YY and, as referenced therein, 40 C.F.R 63, Subpart SS and 40 C.F.R § 63.11. The maximum volume of tail gas consumed

by the flare shall not exceed 2,938,000 standard cubic feet per hour (as determined on a three hour block average).

[45CSR13, R13-2607, A.1.f, B.1]

Note: Subpart YY requirements are found in Section 11.0 of this permit; Subpart SS requirements are found in Section 12.0 of this permit.

- 4.1.7. The dryer heaters that combust tail gas shall be designed and operated in accordance with all applicable requirements of 40 C.F.R 63, Subpart YY and, as referenced therein, any additional requirements of 40 C.F.R 63.

[45CSR13, R13-2607, A.1.g, B.1]

Note: Subpart YY requirements are found in Section 11.0 of this permit. According to Section 3.7.2(a) of this permit 40 C.F.R. § 63 Subpart YY has no applicable requirements for Columbian Dryers and Boilers which burns tail gas.

- 4.1.8. The control devices in the following table shall meet or exceed the minimum control efficiencies for each pollutant as indicated:

Table A.1(h): Control Device Efficiency Table

Control Device(s)	Control Device ID Nos.	Pollutant	Control Efficiency (%)
Unit Bag Collectors	U1BAGCOLL, U2BAGCOLL, U3BAGCOLL, U4BAGCOLL	PM	99.97
Flare	Flare	Hydrocarbons, CO, PM	98.0, 98.0, 77.7
Tail Gas Boiler	TGB	Hydrocarbons, CO, PM	98.0, 98.0, 77.7
Product Dryers	11, 12, 21, 22, 31, 32, 41, 42	Hydrocarbons, CO, PM	98.0, 98.0, 77.7
Unit Vapor Bag Collectors	U1VAP, U2VAP, U3VAP, U4VAP	PM	99.97
Air Conveying Bag Filters	U1CONV BF, U2CONV BF	PM	99.97

[45CSR13, R13-2607, A.1.h]

4.2. Monitoring Requirements

- 4.2.1. Operation of each flare listed under **A.1(a)** (Section 4.1.1 of this permit) shall be in accordance with all applicable MRR requirements promulgated under 40 C.F.R. 63, Subpart YY and, as referenced therein, 40 C.F.R. 63, Subpart SS and 40 C.F.R. § 63.11.

[45CSR13, R13-2607, A.6.a, B.1]

- 4.2.2. Operation of the dryers authorized to combust tail gas under **A.1(b)** (Section 4.1.2 of this permit) shall be in accordance with all applicable MRR requirements promulgated under 40 C.F.R. 63, Subpart YY and, as referenced therein, 40 C.F.R. 63, Subpart SS.

[45CSR13, R13-2607, A.6.b, B.1]

Note: According to Section 3.7.2(a) of this permit 40 C.F.R. § 63 Subpart YY applies to Columbian Dryers and Boilers which burns tail gas, but 40 C.F.R. § 63 Subpart YY has no applicable requirements for Columbian Dryers and Boilers which burns tail gas.

- 4.2.3. For the purposes of determining compliance with maximum per-unit feedstock throughput rates under **A.1(c)(2)** (Section 4.1.3 (b) of this permit), the permittee shall determine the average amount of hourly feedstock oil throughput, as based on three-hour block averages, in each carbon black production unit. This information shall be compiled and recorded at a minimum of once per day and include the feedstock oil throughput data from the previous 24 hours.

[45CSR13, R13-2607, A.6.d]

- 4.2.4. For the purposes of determining compliance with maximum allowable feedstock oil sulfur content under **A.1(c)(3)** (Section 4.1.3 (c) of this permit), the permittee shall maintain records of the sulfur content, by weight, of all feedstock oil used in the production of carbon black. **[45CSR13, R13-2607, A.6.e]**

4.3. Testing Requirements

- 4.3.1. Each flare listed under **A.1(a)** (Section 4.1.1 of this permit) shall perform, pursuant to 40 C.F.R § 63.987(b)(1), a flare compliance assessment.

[45CSR13, R13-2607, A.7.a]

4.4. Recordkeeping Requirements - See Section 3.1.20 to 3.1.22, 3.2.1 & 3.4.6 of this permit.

4.5. Reporting Requirements – N/A

4.6. Compliance Plan – N/A

5.0. Source-Specific Requirements [Product Handling Operation Requirements]

5.1. Limitations and Standards

- 5.1.1. The following table (Table A.2 (a) of R13-2607 in Section 1.0 of this permit) identifies pollutant-emitting carbon black product handling equipment and processes authorized to operate under this permit at the facility. In accordance with the information filed in Permit Application R13-2607, the equipment shall be installed, maintained, and operated so as to minimize any fugitive escape of particulate matter and shall use the specified control devices.
[45CSR13, R13-2607, A.2.a]
- 5.1.2. Maximum hourly and annual emissions and emission concentrations from the operation of each applicable source identified under **A.2(a)** (Section 5.1.1 of this permit), as emitted from the appropriate control device as applicable, shall not exceed those limits as specified in Appendix A.
[45CSR13, R13-2607, A.2.b]
- 5.1.3. With the exception of the “Exit Gas Parameters,” the emission point stack parameters of each source identified under **A.2(a)** (Section 5.1.1 of this permit) shall be in accordance with the specifications as given in Appendix B: The “Exit Gas Parameters” are reproductions of the data used in the air dispersion modeling and are not intended as maximum or minimum limitations and are presented for information purposes only.
[45CSR13, R13-2607, A.2.c]
- 5.1.4. Each bag filter identified under **A.2(a)** (Section 5.1.1 of this permit) shall be designed, installed, operated, and maintained so as to achieve, at a minimum, a collection efficiency of 99.97%.
[45CSR13, R13-2607, A.2.d]

5.2. Monitoring Requirements

- 5.2.1. Compliance with Section 5.1.4 will be demonstrated by Section 3.2.1. Compliance with Section 5.1.2 will be demonstrated by Section 4.1.3 (Please refer to Fact Sheet).

5.3. Testing Requirements – N/A

5.4. Recordkeeping Requirements - Please refer to Sections 3.1.21, 3.1.22, 3.2.1 & 3.4.6 of this permit.

5.5. Reporting Requirements – N/A

5.6. Compliance Plan – N/A

6.0. Source-Specific Requirements [Fuel Burning Units – Boiler # 1, Boiler # 2, TGB]

6.1. Limitations and Standards

- 6.1.1. The following table provides a list of boilers authorized to operate at the subject facility by this permit. In accordance with the information filed in Permit Applications R13-2607, the boilers shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, shall combust only the specified fuels within the specified fuel consumption limits, and shall not exceed the specified maximum hours of operation.

Table A.3(a): Boiler Specifications

ID No.	MDHI (MMBtu/Hr)	Control Device(s)	Maximum Annual Limits ⁽¹⁾		
			Natural Gas (MM ft ³)	Tail Gas (MM ft ³)	Hours of Operation
Boiler #1	21.00	None	183.96	0.00	8,760
Boiler #2	10.00	None	87.60	0.00	8,760
TGB	20.00	None	No Limit	No Limit	8,760

[45CSR13, R13-2607, A.3.a]

- 6.1.2. Emissions resulting from the operation of the boilers identified under **A.3 (a)** (Section 6.1.1 of this permit) shall not exceed those limits as specified in Appendix A.
[45CSR13, R13-2607, A.3.b]
- 6.1.3. With the exception of the “Exit Gas Parameters,” the emission point stack parameters of each source identified under **A.3 (a)** (Section 6.1.1 of this permit) shall be in accordance with the specifications as given in Appendix B: The “Exit Gas Parameters” are reproductions of the data used in the air dispersion modeling and are not intended as maximum or minimum limitations and are presented for information purposes only.
[45CSR13, R13-2607, A.3.c]
- 6.1.4. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1 and 45CSR13, R13-2607, B.1, B.2]
- 6.1.5. Compliance with the visible emission requirements of 45CSR§2-3.1 (Section 6.1.4 of this permit) shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director
[45CSR§2-3.2 and 45CSR13, R13-2607, B.1]
- 6.1.6. No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter

shall be discharged into the open air from all such units;

[45CSR§2-4.1 and 45CSR13, R13-2607, B.1, B.2]

[Note: Facilitywide PM emission limit for boilers = 51.00 mmBtu/Hr x .09 = 4.59 lb/hr]

Meeting the PM limits in Appendix A of the permit will show compliance with this Section.

- 6.1.7. a. The visible emission standards set forth in 45CSR§2-3.1 (Section 6.1.4 of this permit) shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
- b. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.
- c. The owner or operator of a fuel burning unit(s) subject to 45CSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3,4) as provided in one of the following subdivisions:
1. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
 - A. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period.
 - B. Excess opacity does not exceed 40%.
 2. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a (Section 6.1.7.c.1 of this permit), by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
 - A. A detailed explanation of the factors involved or causes of the malfunction;
 - B. The date and time of duration (with starting and ending times) of the period of excess emissions;
 - C. An estimate of the mass of excess emissions discharged during the malfunction period;
 - D. The maximum opacity measured or observed during the malfunction;
 - E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
 - F. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9 and 45CSR13, R13-2607, B.1, B.2.]

- 6.1.8. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows: the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

[45CSR§10-3.1 and 45CSR13, R13-2607, B.1]

(Note : The allowable SO₂ emissions from all boilers = 3.1 x 51.00 mm Btu/hr = 158.10 lbs/hr)

Meeting the SO₂ limits in Appendix A of the permit will show compliance with this Section.

6.2 Monitoring Requirements – Please see Sections 3.1.20–22, 3.4.5.

6.3 Testing Requirements – N/A

6.4 Recordkeeping Requirements

- 6.4.1. Permittee shall maintain record for the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit and shall include:

- a. Date and time of start-up and shut down;
- b. Quantity of fuel consumed in a monthly basis.

[45CSR2 & 10 Monitoring Plan][Boiler # 1 & Boiler # 2][45CSR13, R13-2607, B.1] [45CSR§2-8.3.c]

- 6.4.2. Permittee shall maintain all required records on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement, and reporting.

[45CSR2 & 10 Monitoring Plan] [Boiler # 1 & Boiler # 2][45CSR13, R13-2607, B.1] [45CSR§2-8.3.c]

6.5 Reporting Requirements – N/A

7.0. Source-Specific Requirements [Storage Tanks]

7.1. Limitations and Standards

- 7.1.1. The following table provides a list of feedstock storage vessels authorized to operate by this permit at the subject facility. In accordance with the information filed in Permit Applications R13-2607, and any amendments or revisions thereto, the tanks shall be installed, maintained, and operated so as to minimize any fugitive escape of VOC-laden vapors. The aggregate feedstock oil throughput for all storage tanks shall not exceed 120,000,000 gallons per year.

Table A.4(a): Storage Tank Specifications

Tank ID No.	Calculated⁽¹⁾ Volume (gallons)	Material Stored or Blended
Stortank 1	1,500,000	Feedstock
Stortank 2	1,500,000	Feedstock
Stortank 3	1,500,000	Feedstock
Stortank 4	1,500,000	Feedstock

(1) Capacity as calculated from tank dimensions.

[45CSR13, R13-2607, A.4.a]

- 7.1.2. Emissions resulting from the use of the storage vessels identified under **A.4(a)** (Section 7.1.1 of this permit) shall not exceed the limits as specified in Appendix A.

[45CSR13, R13-2607, A.4.b]

7.2. Monitoring Requirements – N/A

7.3. Testing Requirements – N/A

7.4. Recordkeeping Requirements

- 7.4.1. For the purposes of determining compliance with the maximum throughput limit set forth in **A.4(a)** (Section 7.1.1 of this permit), the applicant shall maintain monthly and rolling twelve month records of the throughput, in gallons, of feedstock through the storage tanks identified under **A.4(a)** (Section 7.1.1 of this permit).

[45CSR13, R13-2607, A.6.g]

7.5. Reporting Requirements - N/A

8.0. Source-Specific Requirements [Oil Heaters A & B]

8.1. Limitations and Standards

- 8.1.1. The following table provides a list of oil heaters authorized to operate at the subject facility by this permit. In accordance with the information filed in Permit Application R13-2607, the oil heaters shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, shall combust only the specified fuels within the specified fuel consumption limits, and shall not exceed the specified maximum hours of operation.

Table A.5(a): Oil Heater Specifications

ID No.	MDHI (MMBtu/Hr)	Control Device(s)	Maximum Annual limits ⁽¹⁾	
			Natural Gas (MM ft ³)	Hours of Operation
Oil Htr A	4.00	None	35.04	8,760
Oil Htr B	4.00	None	35.04	8,760

[45CSR13, R13-2607, A.5.a]

- 8.1.2. Emissions resulting from the use of the Oil Heaters identified under A.5 (a) (Section 8.1.1 of this permit) shall not exceed the limits as specified in Appendix A.

[45CSR13, R13-2607, A.5.b]

- 8.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

[45CSR§2-3.1 and 45CSR13, R13-2607, B.1, B.2]

- 8.1.4. Compliance with the visible emission requirements of subsection 3.1 (Section 8.1.3 of this permit) shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director

[45CSR§2-3.2 and 45CSR13, R13-2607, B.1]

8.2. Monitoring Requirements – N/A

8.3. Testing Requirements – N/A

8.4. Recordkeeping Requirements – Please see section 3.4.5

8.5. Reporting Requirements – N/A

8.6. Compliance Plan – N/A

9.0. Source-Specific Requirements [TGB] [Small Industrial-Commercial-Institutional Steam Generating Units subject to 40 C.F.R. 60 Subpart Dc]

9.1. Limitations and Standards

N/A

9.2. Monitoring Requirements

N/A

9.3. Testing Requirements

N/A

9.4. Recordkeeping Requirements

- 9.4.1. (a) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

[40 C.F.R. §60.48c(g), 45CSR16]

- (b) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

[40 C.F.R. §60.48c(i), 45CSR16]

9.5. Reporting Requirements

- 9.5.1. The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 C.F.R §60.7. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

- (2) N/A

- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

[40 C.F.R. §60.48c(a), 45CSR16]

10.0 Source-Specific Requirements [Boiler # 1, Boiler # 2] [Boilers and Process Heaters located at major sources of HAPS subject to 40CFR63 Subpart DDDDD]

Boilers and Process Heaters Boiler # 1 & Boiler # 2 shall comply with all applicable requirements of 40 CFR 63, Subpart DDDDD - "National Emissions Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters" according to 40 C.F.R. §63.7495. An Initial Notification as described in 40 C.F.R. §63.7545 shall be submitted. ~~The permittee shall submit a complete application for a significant Title V permit modification to include the specific requirements of 40 C.F.R. 63, Subpart DDDDD in the operating permit no less than 6 months prior to the September 13, 2007. [45CSR34, 40 C.F.R. §§63.7495 and 63.7545]~~

Note: Initial notification was submitted by the permittee on March 11, 2005

10.1. Do any boilers or process heaters have limited requirements?

- (a) N/A
- (b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in 40 C.F.R. §63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of 40 C.F.R 63 Subpart DDDDD or any other requirements in 40 C.F.R 63 Subpart A).
 - (1) Existing large and limited use gaseous fuel units.
 - (2) N/A
 - (3) New small liquid fuel units that burn only gaseous fuels or distillate oil. New small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of 40 C.F.R 63 Subpart DDDDD and 40 C.F.R 63 Subpart A upon startup of burning the other type of liquid fuel.
- (c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in 40 C.F.R. §63.9(b) and are not subject to any requirements in 40 C.F.R 63 Subpart DDDDD and 40 C.F.R.63 Subpart A (i.e., they are not subject to the emission limits, work practice standards, performance, testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of 40 C.F.R 63 Subpart DDDDD and 40 C.F.R 63 Subpart A).
 - (1) N/A
 - (2) N/A
 - (3) Existing small gaseous fuel boilers and process heaters.
 - (3) New small gaseous fuel units.

[40 C.F.R. §63.7506, 45CSR34]

10.2. What definitions apply to this subpart?

Please refer to 40 C.F.R. §63.7575 for definitions applicable to this section.

10.3. What notifications must I submit and when?

- (a) N/A
- (b) As specified in 40 C.F.R. § 63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.
 - (1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by 40 C.F.R. § 63.9(b)(2).

- (2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by 40 C.F.R. § 63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

The notification, required by 40 C.F.R. § 63.9(b)(2), shall provide the following information:

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.

[40 C.F.R. §63.7545, 40 C.F.R. § 63.9(b)(2), 45CSR34]

Note: Initial notification was submitted by the permittee on March 11, 2005

11.0. Source-Specific Requirements [Sections of 40CFR63 Subpart YY applicable to this facility]

In this Section 11, any reference to “this subpart” shall mean 40 C.F.R. 63 Subpart YY, any reference to “this part” shall mean 40 C.F.R. Part63, any reference to “the Act” shall mean Clean Air Act.

11.1. Applicability.

- (a) *General.* This subpart applies to source categories and affected sources specified in 40 C.F.R. §63.1103(a) through (h). The affected emission points, by source category, are summarized in table 1 of this section. This table also delineates the section and paragraph of the rule that directs an owner or operator of an affected source to source category-specific control, monitoring, recordkeeping, and reporting requirements.

Table 1 to 40 C.F.R. §63.1100(a) Source Category MACT Applicability							
Source Category	Storage Vessels	Process vents	Transfer Racks	Equipment Leaks	Wastewater streams	Other	Source Category MACT Requirements
Carbon Black Production	No	Yes	No	No	No	No	40 C.F.R. §63.1103(f) (Section 11.4(f) of this permit)

- (b) *Subpart A requirements.* The following provisions of subpart A of this part (General Provisions): 40 C.F.R. §§63.1 through 63.5, and 40 C.F.R. §§63.12 through 63.15, apply to owners or operators of affected sources subject to this subpart.
- (c) N/A
- (d) *Primary product determination and applicability.* The primary product of a process unit shall be determined according to the procedures specified in (d)(1) and (2) of this section. 40 C.F.R. §63.1110(d)(3), (4), and (5) discuss compliance for those process units operated as flexible operation units.
- (1) If a process unit only manufactures one product, then that product shall represent the primary product of the process unit.
- (2) to (5) N/A
- (e) N/A
- (f) *Recovery operation equipment ownership determination.* To determine the process unit to which recovery equipment shall belong, the owner or operator shall sequentially follow the procedures specified in (f)(1) through (7) of this section, stopping as soon as the determination is made.
- (1) If recovery operation equipment is already subject to another subpart of this part on the date standards are promulgated for an affected source, that recovery operation equipment shall belong to the process unit subject to the other subpart.
- (2) If recovery operation equipment is used exclusively by a single process unit, the recovery operation shall belong to that process unit.
- (3) to (7) N/A
- (g) *Overlap with other regulations.* 40 C.F.R. §63.1100(g)(1) through (6) specify the applicability of 40 C.F.R. 63 subpart YY emission point requirements when other rules may apply. Where 40 C.F.R. 63 subpart YY allows an owner or operator an option to comply with one or another regulation to comply with 40 C.F.R. 63 subpart YY, an owner or operator must report which regulation they choose to comply with in the Notification of Compliance Status report required by 40 C.F.R. §63.1110(a)(4) (Section 11.8(a)(4) of this permit).
- [45CSR34, 40 C.F.R. §63.1100 and 45CSR13, R13-2607, B.1.]**

11.2. Definitions.

See 40 C.F.R. § 63.1101 for definitions of terms used in this section.

[45CSR34, 40 C.F.R. §63.1101, 45CSR13, R13- 2607, B.1.]

11.3. Compliance schedule.

- (a) *General requirements.* Affected sources, as defined in 40 C.F.R. §63.1103(f)(1)(i) (Section 11.4(f)(1)(i) of this permit) for carbon black production shall comply with the appropriate provisions of this subpart and the subparts referenced by this subpart according to the schedule in paragraph (a)(1) or (2) of this section, as appropriate. Proposal and effective dates are specified in Table 1 to this section.

(1) *Compliance dates for new and reconstructed sources.*

- (i) The owner or operator of a new or reconstructed affected source that commences construction or reconstruction after the proposal date, and that has an initial startup before the effective date of standards for an affected source, shall comply with this subpart no later than the applicable effective date in Table 1 of this section.
- (ii) The owner or operator of a new or reconstructed affected source that has an initial startup after the applicable effective date in Table 1 of this section shall comply with this subpart upon startup of the source.
- (iii) The owner or operator of an affected source that commences construction or reconstruction after the proposal date, but before the effective date in Table 1 to this section, shall comply with this subpart no later than the date 3 years after the effective date if the conditions in paragraphs (a)(1)(iii) (A) and (B) of this section are met.
- (A) The promulgated standards are more stringent than the proposed standards.
- (B) The owner or operator complies with this subpart as proposed during the 3-year period immediately after the effective date of standards for the affected source.

(2) *Compliance dates for existing sources.*

- (i) The owner or operator of an existing affected source shall comply with the requirements of this subpart within 3 years after the effective date of standards for the affected source.

Table 1_Source Category Proposal and Effective Dates

Source category	Proposal date	Effective date
(f) Carbon Black Production.	December 6, 2000	July 12, 2002.

- (b) Reserved

[45CSR34, 40 C.F.R. §63.1102, 45CSR13, R13- 2607, B.1.]

11.4. Source category-specific applicability, definitions, and requirements.

- (a) to (e) N/A

(f) *Carbon black production applicability, definitions, and requirements*

(1) *Applicability*

- (i) *Affected source.* For the carbon black production source category (as defined in paragraph (f)(2) of this section), the affected source shall comprise each carbon black production process unit located at a major source, as defined in section 112(a) of the Act. The affected source for the carbon black production source category includes all waste management units, maintenance wastewater, and equipment components that contain or contact HAP that are associated with the carbon black production process unit.
- (ii) *Compliance schedule.* The compliance schedule for the carbon black production and acetylene decomposition carbon black production affected sources, as defined in paragraph (f)(1)(i) of this section, is specified in 40 C.F.R §63.1102 (Section 11.3 of this permit).

(2) *Definitions.*

Carbon black production means the production of carbon black by either the furnace, thermal, acetylene decomposition, or lampblack processes.

Carbon black production unit means the equipment assembled and connected by hard-piping or duct work to

process raw materials to manufacture, store, and transport a carbon black product. For the purposes of this subpart, a carbon black production process unit includes reactors and associated operations; associated recovery devices; and any feed, intermediate and product storage vessels, product transfer racks, and connected ducts and piping. A carbon black production process unit includes pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or systems. *Dryer* means a rotary-kiln dryer that is heated externally and is used to dry wet pellets in the wet pelletization process.

Main unit filter means the filter that separates the carbon black from the tailgas.

Process filter means the filter that separates the carbon black from the conveying air.

Purge filter means the filter that separates the carbon black from the dryer exhaust.

(3) *Requirements.*

(i) Table 8 to this section specifies the carbon black production standards applicability for existing and new sources. Applicability assessment procedures and methods are specified in 40 C.F.R. §63.1104 (Section 11.5 of this permit). An owner or operator of an affected source is not required to perform applicability tests or other applicability assessment procedures if they opt to comply with the most stringent requirements for an applicable emission point pursuant to this subpart. General compliance, recordkeeping, and reporting requirements are specified in 40 C.F.R. §§63.1108 through 63.1112 (Sections 11.6 to 11.10 of this permit). Procedures for approval of alternative means of emission limitations are specified in 40 C.F.R. §63.1113.

(ii) Pressure relief devices used to protect against overpressure in the case of catastrophic failure of your process filter system are exempt from the closed vent system inspection requirements of 40 C.F.R. §63.983(b) and (c) (Section 12.3 (b) & (c) of this permit). Exempt pressure relief devices must be designated and identified in your Notification of Compliance Status report.

Table 8 to 40 C.F.R. §63.1103(f)_What Are My Requirements if I Own or Operate a Carbon Black Production Existing or New Affected Source?

If you own or operate...	And if ...	Then you must . . .
(a) A carbon black production main unit filter process vent.	(1) The HAP concentration of the emission stream is equal to or greater than 260 parts per million by volume ^a	(i) Reduce emissions of HAP by using a flare meeting the requirements of subpart SS of this part; or (ii) Reduce emissions of total HAP by 98 weight- percent or to a concentration of 20 parts per million by volume, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirements of 40 C.F.R. §63.982(a)(2) (Section 12.2(a)(2) of this permit).

^a The weight-percent organic HAP is determined according to the procedures specified in 40 C.F.R. §63.1104(e) (Section 11.5(e) of this permit).

(g) & (h) N/A

[45CSR34, 40 C.F.R. §63.1103 and 45CSR13, R13-2607, B.1 & B.9]

11.5. Process vents from continuous unit operations: applicability assessment procedures and methods.

(a) *General.* The provisions of this section provide calculation and measurement methods for criteria that are required by 40 C.F.R. §63.1103 (Section 11.4 of this permit) to be used to determine applicability of the control requirements for process vents from continuous unit operations. The owner or operator of a process vent is not required to determine the criteria specified for a process vent that is being controlled (including control by flare) in accordance with the applicable weight-percent, TOC concentration, or organic HAP concentration requirement in 40 C.F.R. §63.1103 (Section 11.4 of this permit).

(b) to (l) – N/A

(m) *Applicability assessment reporting requirements.*

- (1) *Notification of Compliance Status.* The owner or operator shall submit, as part of the Notification of Compliance Status report required by 40 C.F.R. §63.1110(a)(4) (Section 11.8(a)(4) of this permit), the information recorded in paragraph (l)(1) through (3) of this section.
- (2) *Process change.*
 - (i) Whenever a process vent becomes subject to control requirements under this subpart as a result of a process change, the owner or operator shall submit a report within 60 days after the performance test or applicability assessment, whichever is sooner. The report may be submitted as part of the next Periodic Report required by 40 C.F.R. §63.1110(a)(5) (Section 11.8(a)(5) of this permit). The report shall include the information specified in paragraphs (m)(2)(i)(A) through (C) of this section.
 - (A) A description of the process change;
 - (B) The results of the recalculation of the TOC or organic HAP concentration, flow rate, and/or TRE index value required under paragraphs (e), (f), and (j), and recorded under paragraph (l); and
 - (C) A statement that the owner or operator will comply with the requirements specified in 40 C.F.R. §63.1103 (Section 11.4 of this permit) by the schedules specified in that section for the affected source.
 - (ii) If a performance test is required as a result of a process change, the owner or operator shall specify that the performance test has become necessary due to a process change. This specification shall be made in the performance test notification to the Administrator, as specified in 40 C.F.R. §63.999(a)(1) (Section 12.9(a)(1) of this permit).
 - (iii) If a process change does not result in additional applicable requirements, then the owner or operator shall include a statement documenting this in the next Periodic Report required by 40 C.F.R. §63.1110(a)(5) (Section 11.8(a)(5) of this permit) after the process change was made.

- (n) *Parameter monitoring of certain process vents.* An owner or operator who maintains a TRE index value (if applicable) in the applicable TRE index value monitoring range as specified in an applicable table presented in 40 C.F.R. §63.1103 of this subpart without using a recovery device shall report a description of the parameter(s) to be monitored to ensure the process vent is operated in conformance with its design or process and achieves and maintains the TRE index value above the specified level, and an explanation of the criteria used to select parameter(s). An owner or operator who maintains a TRE index value (if applicable) in the applicable TRE index monitoring range as specified in an applicable table presented in 40 C.F.R. §63.1103 of this subpart by using a recovery device shall comply with the requirements of 40 C.F.R. §63.993(c).

[45CSR34, 40 C.F.R. §63.1104, 45CSR13, R13- 2607, B.1.]

11.6. Compliance with standards and operation and maintenance requirements.

(a) *Requirements.*

- (1) Except as provided in 40 C.F.R. §63.1108(a)(2), the emission limitations and established parameter ranges of this part shall apply at all times except during periods of startup, shutdown, malfunction, or non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. During periods of startup, shutdown, or malfunction, the owner or operator shall follow the applicable provisions of the startup, shutdown, malfunction plan required by 40 C.F.R. §63.1111 (Section 11.9 of this permit). However, if a startup, shutdown, malfunction or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of this subpart and any of the subparts that are referenced by this subpart during startup, shutdown, malfunction, or period of non-operation.
- (2) N/A
- (3) N/A
- (4) [Reserved]
- (5) During startups, shutdowns, and malfunctions when the emission standards of this subpart and the subparts referenced by this subpart do not apply pursuant to paragraphs (a)(1) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions. The measures to be taken shall be identified in the startup, shutdown, and malfunction plan (if applicable), and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention,

monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available. Compliance with an inadequate startup, shutdown, and malfunction plan developed pursuant to 40 C.F.R. §63.1111 (Section 11.9 of this permit) is not a shield for failing to comply with good operation and maintenance requirements.

- (6) Malfunctions shall be corrected as soon as practical after their occurrence and/or in accordance with the source's startup, shutdown, and malfunction plan developed as specified under 40 C.F.R. §63.1111 (Section 11.9 of this permit).
- (7) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable, independent of emissions limitations or other requirements in relevant standards.

(b) Compliance assessment procedures.

- (1) *Parameter monitoring: compliance with operating conditions.* Compliance with the required operating conditions for the monitored control devices or recovery devices may be determined by, but is not limited to, the parameter monitoring data for emission points that are required to perform continuous monitoring. For each excursion except for excused excursions (as described in 40 C.F.R. §63.998(b)(6)(ii) (Section 12.8(b)(6)(ii) of this permit)), and as provided for in paragraph (b)(2) of this section the owner or operator shall be deemed to have failed to have applied the control in a manner that achieves the required operating conditions.
- (2) *Parameter monitoring: Excursions.* An excursion is not a violation in cases where continuous monitoring is required and the excursion does not count toward the number of excused excursions (as described in 40 C.F.R. §63.998(b)(6)(ii) (Section 12.8(b)(6)(ii) of this permit)), if the conditions of paragraph (b)(2)(i) or (ii) of this section are met. Nothing in this paragraph shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of this subpart or a subpart referenced by this subpart.
 - (i) During periods of startup, shutdown, or malfunction (and the source is operated during such periods in accordance with the source's startup, shutdown, and malfunction plan as required by 40 C.F.R. §63.1111 (Section 11.9 of this permit)), or
 - (ii) During periods of non-operation of the affected source or portion thereof (resulting in cessation of the emissions to which the monitoring applies).
- (3) *Operation and maintenance procedures.* Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director. This information may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan under 40 C.F.R. §63.1111 (Section 11.9 of this permit)), review of operation and maintenance records, and inspection of the affected source, and alternatives approved as specified in 40 C.F.R. §63.1113.
- (4) *Applicability and compliance assessment procedures.* Applicability and compliance with standards shall be governed by, in part, but not limited to, the use of data, tests, and requirements according to paragraphs (b)(4)(i) through (iii) of this section. Compliance with design, equipment, work practice, and operating standards, including those for equipment leaks, shall be determined according to paragraph (b)(5) of this section.
 - (i) *Applicability assessments.* Unless otherwise specified in a relevant test method required to assess control applicability, each test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in this subpart. The arithmetic mean of the results of the three runs shall apply when assessing applicability. Upon receiving approval from the Director, results of a test run may be replaced with results of an additional test run if it meets the criteria specified in paragraphs (a)(4)(i)(A) through (D) of this section.
 - (A) A sample is accidentally lost after the testing team leaves the site; or
 - (B) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
 - (C) Extreme meteorological conditions occur;
 - (D) Other circumstances occur that are beyond the owner or operator's control.
 - (ii) *Performance test.* The Director may determine compliance with emission limitations of this subpart based on, but not limited to, the results of performance tests conducted according to the procedures specified in 40 C.F.R. §63.997 (Section 12.7 of this permit), unless otherwise specified in this subpart or a subpart referenced by this subpart.
 - (iii) *Operation and maintenance requirements.* The Director may determine compliance with the operation and maintenance standards of this subpart by, but not limited to, evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in this

subpart or a subpart referenced by this subpart.

- (5) *Design, equipment, work practice, or operational standards.* The Director may determine compliance with design, equipment, work practice, or operational requirements by, but is not limited to, review of records, inspection of the affected source, and by evaluation of an owner or operator's conformance with operation and maintenance requirements as specified in this subpart, and in the subparts referenced by this subpart.
- (c) *Finding of compliance.* The Director may make a finding concerning an affected source's compliance with an emission standard or operating and maintenance requirement as specified in, but not limited to, paragraphs (a) and (b) of this section, upon obtaining all of the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Director to determine whether proper operation and maintenance practices are being used. Standards in this subpart and methods of determining compliance are in metric units followed by the equivalents in English units. The Director will make findings of compliance with the numerical standards of this subpart using metric units.
- (d) *Compliance time.* All terms that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annually), unless specified otherwise in the section or subsection that imposes the requirement, refer to the standard calendar periods.
- (1) Notwithstanding time periods specified for completion of required tasks, time periods may be changed by mutual agreement between the owner or operator and the Director, as specified in 40 C.F.R. 63.1110(h) (Section 11.8(h) of this permit). For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period.
- (2) When the period specified for compliance is a standard calendar period, if the initial compliance date occurs after the beginning of the period, compliance shall be required according to the schedule specified in paragraph (d)(2) (i) or (ii) of this section, as appropriate.
- (i) Compliance shall be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or
- (ii) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.
- (3) In all instances where a provision requires completion of a task during each of multiple successive periods, an owner or operator may perform the required task at any time during the specified period, provided the task is conducted at a reasonable interval after completion of the task during the previous period.
- [45CSR34, 40 C.F.R. §63.1108, 45CSR13, R13- 2607, B.1.]**

11.7. Recordkeeping requirements.

- (a) *Maintaining notifications, records, and reports.* Except as provided in paragraph (b) of this section, the owner or operator of each affected source subject to this subpart shall keep copies of notifications, reports and records required by this subpart and subparts referenced by this subpart for at least 5 years, unless otherwise specified under this subpart.
- (b) *Copies of reports.* If the Administrator has waived the requirement of 40 C.F.R. §63.1110(g)(1) (Section 11.8(g)(1) of this permit) for submittal of copies of reports, the owner or operator is not required to maintain copies of the waived reports. This paragraph applies only to reports and not the underlying records that must be maintained as specified in this subpart and the subparts referenced by this subpart.
- (c) *Availability of records.* All records required to be maintained by this subpart or a subpart referenced by this subpart shall be maintained in such a manner that they can be readily accessed and are suitable for inspection. The records of the remaining 3 years, where required, may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, computer disk, magnetic tape, or microfiche.
- (d) *Control applicability records.* Owners or operators shall maintain records containing information developed and used to assess control applicability under 40 C.F.R. §63.1103 (Section 11.4 of this permit)(e.g., combined total annual emissions of regulated organic HAP).

[45CSR34, 40 C.F.R. §63.1109, 45CSR13, R13-2607, B.1.]

11.8. Reporting requirements.

- (a) *Required reports.* Each owner or operator of an affected source subject to this subpart shall submit the reports listed in paragraphs (a)(1) through (8) of this section, as applicable.
- (1) A Notification of Initial Startup described in 40 C.F.R. §63.1110(b).
 - (2) An Initial Notification described in 40 C.F.R. §63.1110(c) (Section 11.8(c) of this permit).
 - (3) [Reserved]
 - (4) A Notification of Compliance Status report described in paragraph (d) of this section.
 - (5) Periodic Reports described in paragraph (e) of this section.
 - (6) Application for approval of construction or reconstruction described in 40 C.F.R. §63.5(d) of subpart A of this part.
 - (7) Startup, Shutdown, and Malfunction Reports described in 40 C.F.R. §63.1111 (Section 11.9 of this permit) of this subpart.
 - (8) Other reports. Other reports shall be submitted as specified elsewhere in this subpart and subparts referenced by this subpart.
- (b) *Notification of initial startup.* N/A
- (c) *Initial Notification.* Owners or operators of affected sources who are subject to this subpart shall notify the Administrator of the applicability of this subpart by submitting an Initial Notification according to the schedule described in paragraph (c)(1) of this section. The notice shall include the information specified in paragraphs (c)(2) through (7) of this section, as applicable. An application for approval of construction or reconstruction required under 40 C.F.R. §63.5(d) of subpart A of this part may be used to fulfill the initial notification requirements.
- (1) The initial notification shall be postmarked within 1 year after the source becomes subject to this subpart.
 - (2) N/A
 - (3) Identification of the process vents subject to this subpart.
 - (4) N/A
 - (5) N/A
 - (6) Identification of other equipment or emission points subject to this subpart.
 - (7) As an alternative to the requirements specified in paragraphs (c)(1) through (3) and (c)(5) of this section, process units can be identified instead of individual pieces of equipment. For this alternative, the kind of emission point in the process unit that will comply must also be identified.
- (d) *Notification of Compliance Status.*
- (1) *Contents.* The owner or operator shall submit a Notification of Compliance Status for each affected source subject to this subpart containing the information specified in paragraphs (d)(1)(i) and (d)(1)(ii) of this section.
 - (i) The Notification of Compliance Status shall include the information specified in this subpart and the subparts referenced by this subpart. Alternatively, this information can be submitted as part of a title V permit application or amendment.
 - (ii) The Notification of Compliance Status shall include a statement from the owner or operator identifying which subpart he or she has elected to comply with, where given a choice, as provided for in 40 C.F.R. §63.1100(g) (Section 11.1(g) of this permit).
 - (2) *Due date.* The owner or operator shall submit the Notification of Compliance Status for each affected source 240 days after the compliance date specified for the affected source under this subpart, or 60 days after completion of the initial performance test or initial compliance assessment, whichever is earlier. Notification of Compliance Status reports may be combined for multiple affected sources as long as the due date requirements for all sources covered in the combined report are met.
- (e) *Periodic Reports.* The owner or operator of an affected source subject to monitoring requirements of this subpart, or to other requirements of this subpart or subparts referenced by this subpart, where periodic reporting is specified, shall submit a Periodic Report.
- (1) *Contents.* Periodic Reports shall include all information specified in this subpart and subparts referenced by this subpart.
 - (2) *Due date.* The Periodic Report shall be submitted no later than 60 days after the end of each 6-month period. The

first report shall cover the 6-month period after the Notification of Compliance Status report is due. The first report shall be submitted no later than the last day of the month that includes the date 8 months (6 months and 60 days) after the Notification of Compliance Status report is due.

- (3) *Overlap with title V reports.* Information required by this subpart, which is submitted with a title V periodic report, need not also be included in a subsequent Periodic Report required by this subpart or subpart referenced by this subpart. The title V report shall be referenced in the Periodic Report required by this subpart.
- (f) *General report content.* All reports and notifications submitted pursuant to this subpart, including reports that combine information required under this subpart and a subpart referenced by this subpart, shall include the information specified in paragraphs (f)(1) through (4) of this section.
 - (1) The name, address and telephone number (fax number may also be provided) of the owner or operator.
 - (2) The name, address and telephone number of the person to whom inquiries should be addressed, if different than the owner or operator.
 - (3) The address (physical location) of the reporting facility.
 - (4) Identification of each affected source covered in the submission and identification of the subparts (this subpart and the subparts referenced in this subpart) that are applicable to that affected source. Summaries and groupings of this information are permitted.
- (g) *Report and notification submission.*
 - (1) *Submission to the Environmental Protection Agency.* All reports and notifications required under this subpart shall be sent to the appropriate EPA Regional Office and to the delegated State authority, except that request for permission to use an alternative means of emission limitation as provided for in 40 C.F.R. §63.1113 shall be submitted to the Director of the EPA Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, MD-10, Research Triangle Park, North Carolina, 27711. The EPA Regional Office may waive the requirement to submit a copy of any reports or notifications at its discretion.
 - (2) *Submission of copies.* If any State requires a notice that contains all the information required in a report or notification listed in this subpart, an owner or operator may send the appropriate EPA Regional Office a copy of the report or notification sent to the State to satisfy the requirements of this subpart for that report or notification.
 - (3) *Method of submission.* Wherever this subpart specifies “postmark” dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent on or before the specified date.
 - (4) *Submission by electronic media.* If acceptable to both the Director and the owner or operator of an affected source, reports may be submitted on electronic media.
- (h) *Adjustment to timing of submittals and review of required communications.*
 - (1) *Alignment with title V submission.* An owner or operator may submit Periodic Reports required by this subpart on the same schedule as the title V periodic report for the facility. The owner or operator using this option need not obtain prior approval, but must ensure that no reporting gaps occur. The owner or operator shall clearly identify the change in reporting schedule in the first report filed under this paragraph. The requirements of paragraph (f) of this section are not waived when implementing this change.
 - (2) *Establishment of a common schedule.* An owner or operator may arrange by mutual agreement (which may be a standing agreement) with the Director a common schedule on which periodic reports required by this subpart shall be submitted throughout the year as long as the reporting period is not extended. Procedures governing the implementation of this provision are specified in paragraphs (h)(3) through (7) of this section.
 - (3) *Submission requirements.* Except as allowed by paragraph (h)(1) of this section, until an adjustment of a time period or postmark deadline has been approved by the Director under paragraphs (h)(5) and (6) of this section, the owner or operator of an affected source remains strictly subject to the required submittal deadlines specified in this subpart and subparts referenced by this subpart.
 - (4) *Request for adjustment of reporting schedule.* Except as allowed by paragraph (h)(1) of this section, an owner or operator shall request the adjustment provided for in paragraphs (h)(5) and (6) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this subpart or subparts referenced by this subpart. A request for a change to the periodic reporting schedule need only be made once for every schedule change and not once for every semiannual report submitted.
 - (5) *Alteration of time periods or deadlines.* Notwithstanding time periods or postmark deadlines specified in this

subpart for the submittal of information to the Director by an owner or operator, or the review of such information by the Director, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Director. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practical before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Director that an adjustment is warranted.

- (6) *Approval of request for adjustment.* If, in the Director's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Director will approve the adjustment. The Director will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (7) *Notification of delay.* If the Director is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[45CSR34, 40 C.F.R. §63.1110, 45CSR13, R13-2607, B.1.]

11.9. Startup, shutdown, and malfunction.

(a) Startup, shutdown, and malfunction plan.

- (1) *Description and purpose of plan.* The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction. This plan shall also include a program of corrective action for malfunctioning process and air pollution control equipment used to comply with relevant standards under this subpart. The plan shall also address routine or otherwise predictable continuous parameter monitoring system (CPMS) malfunctions. This plan shall be developed by the owner or operator by the affected source's compliance date under this subpart. The requirement to develop and implement this plan shall be incorporated into the source's title V permit. It is not optional for equipment equipped with a closed vent system and control device subject to this subpart and subpart SS of this part. The purpose of the startup, shutdown, and malfunction plan is described in paragraphs (a)(1)(i) and (ii) of this section.
 - (i) To ensure that owners or operators are prepared to correct malfunctions as soon as practical after their occurrence, in order to minimize excess emissions of regulated organic HAP; and
 - (ii) To reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).
- (2) *Operation of source.* During periods of startup, shutdown, and malfunction, the owner or operator of an affected source subject to this subpart shall operate and maintain such affected source (including associated air pollution control equipment and CPMS) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (a)(1) of this section.
- (3) *Use of additional procedures.* To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator of an affected source may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Director.
- (4) *Revisions to the plan.* Based on the results of a determination made under 40 C.F.R. §63.1108(b)(3) (Section 11.6(b)(3) of this permit), the Director may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Director may require reasonable revisions to a startup, shutdown, and malfunction plan if the Director finds that the plan is inadequate as specified in paragraphs (a)(4)(i) through (iv) of this section:
 - (i) Does not address a startup, shutdown, and malfunction event of the CPMS, the air pollution control equipment, or the affected source that has occurred; or
 - (ii) Fails to provide for the operation of the affected source (including associated air pollution control equipment and CPMS) during a startup, shutdown, and malfunction event in a manner consistent with good air pollution control practices for minimizing emissions to the extent practical; or
 - (iii) Does not provide adequate procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable; or

- (iv) Does not provide adequate measures to prevent or minimize excess emissions to the extent practical as specified in 40 C.F.R. §63.1108(a)(5) (Section 11.6(a)(5) of this permit).
- (5) *Additional malfunction plan requirements.* If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the affected source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS.
- (b) *Startup, shutdown, and malfunction reporting requirements.*
- (1) *Periodic startup, shutdown, and malfunction reporting requirements.* If actions taken by an owner or operator during a startup, shutdown, and malfunction of an affected source, or of a control device or monitoring system required for compliance (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's plan, then the owner or operator shall state such information in a startup, shutdown, and malfunction report. During the reporting period, reports shall only be required for startups, shutdowns, and malfunctions during which excess emissions, as defined in 40 C.F.R. §63.1108(a)(5) (Section 11.6(a)(5) of this permit), occur during the reporting period. A startup, shutdown, and malfunction report can be submitted as part of a Periodic Report required under 40 C.F.R. §63.1110(a)(5) (Section 11.8(a)(5) of this permit), or on a more frequent basis if specified otherwise under this subpart or a subpart referenced by this subpart or as established otherwise by the permitting authority in the affected source's title V permit. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate), unless the information is submitted with the Periodic Report. The report shall include the information specified in paragraphs (b)(1)(i) through (b)(1)(iv) of this section.
- (i) The name, title, and signature of the owner or operator or other responsible official certifying its accuracy.
- (ii) The number of startup, shutdown, and malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period if the total duration amounts to either of the durations in paragraphs (b)(1)(ii)(A) or (B) of this section. Records of the number of CPMS startup, shutdown, and malfunction events and the total duration of all periods of startup, shutdown, and malfunction for the reporting period are required under 40 C.F.R. §63.998(c)(1)(ii)(C) and (D).
- (A) Total duration of periods of malfunctioning of a CPMS equal to or greater than 5 percent of that CPMS operating time for the reporting period; or
- (B) Total duration of periods of startup, shutdown, and malfunction for an affected source equal to or greater than 1 percent of that affected source's operating time for the reporting period.
- (iii) Records documenting each startup, shutdown and malfunction event as required under 40 C.F.R. §63.998(c)(1)(ii)(F).
- (iv) Records documenting the total duration of operating time as required under 40 C.F.R. §63.998(c)(1)(ii)(H).
- (2) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for startup, shutdown, and malfunction reports under paragraph (b)(1) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) during which excess emissions occur is not consistent with the procedures specified in the affected source's plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan, followed by a letter delivered or postmarked within 7 working days after the end of the event. The immediate report required under this paragraph shall contain the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in 40 C.F.R. §63.1110(h) (Section 11.8(h) of this permit).
- (3) [Reserved]

[45CSR34, 40 C.F.R. §63.1111, 45CSR13, R13-2607, B.1.]

11.10. Extension of compliance, and performance test, monitoring, recordkeeping and reporting waivers and alternatives.

On July 27, 2004, WVDAQ issued approval for a compliance extension from the Carbon Black MACT until April 17, 2006. Please see Attachment A.

[45CSR34, 40 C.F.R. §63.1112, 45CSR13, R13-2607, B.1.]

11.11. Implementation and enforcement.

- (a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State agency. If the EPA Administrator has delegated authority to a State agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State agency.
 - (1) Approval of alternatives to the nonopacity emissions standards in 40 C.F.R. §63.1103(a)(3), (b)(3) through (5), (c)(3), (d)(3), (e)(3), (f)(3), (g)(3) and (4), and (h)(3) under 40 C.F.R. §63.6(g). Follow the requirements in 40 C.F.R. §63.1113 to request permission to use an alternative means of emission limitation. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.
 - (2) [Reserved]
 - (3) Approval of major changes to test methods under 40 C.F.R. §63.7(e)(2)(ii) and (f) and as defined in 40 C.F.R. §63.90.
 - (4) Approval of major changes to monitoring under 40 C.F.R. §63.8(f) and as defined in 40 C.F.R. §63.90.
 - (5) Approval of major changes to recordkeeping and reporting under 40 C.F.R. §63.10(f) and as defined in 40 C.F.R. §63.90.

[45CSR34, 40 C.F.R. §63.1114, 45CSR13, R13- 2607, B.1.]

12.0. Source-Specific Requirements [Sections of 40 C.F.R. 63 Subpart SS applicable to this facility]

In this Section 12, any reference to “this subpart” shall mean 40 C.F.R. 63 Subpart SS, any reference to “this part” shall mean 40 C.F.R. Part 63, any reference to “the Act” shall mean Clean Air Act.

12.1 Definitions.

Please refer to 40 C.F.R. § 63.981 for definitions applicable to this facility.

[45CSR34, 40 C.F.R. §63.981, 45CSR13, R13- 2607, B.1.]

12.2. Requirements.

- (a) *General compliance requirements for storage vessels, process vents, transfer racks, and equipment leaks.* An owner or operator who is referred to this subpart for controlling regulated material emissions from storage vessels, process vents, low and high throughput transfer racks, or equipment leaks by venting emissions through a closed vent system to a flare, nonflare control device or routing to a fuel gas system or process shall comply with the applicable requirements of paragraphs (a)(1) through (4) of this section.

(1) *Storage vessels.* N/A

(2) *Process vents.* The owner or operator shall comply with the applicable provisions of paragraph (b) of this section.

(3) *Transfer racks.* N/A

(4) *Equipment leaks.* The owner or operator shall comply with the applicable provisions of paragraphs (b), (c)(3), and (d) of this section.

- (a) *Closed vent system and flare.* Owners or operators that vent emissions through a closed vent system to a flare shall meet the requirements in 40 C.F.R. §63.983 (Section 12.3 of this permit) for closed vent systems; 40 C.F.R. §63.987 (Section 12.5 of this permit) for flares; 40 C.F.R. §63.997 (a), (b) and (c) (Section 12.7 (a), (b) and (c) of this permit) for provisions regarding flare compliance assessments; the monitoring, recordkeeping, and reporting requirements referenced therein; and the applicable recordkeeping and reporting requirements of 40 C.F.R. §§63.998 (Section 12.8 of this permit) and 63.999 (Section 12.9 of this permit). No other provisions of this subpart apply to emissions vented through a closed vent system to a flare.

(b) N/A

- (c) *Route to a fuel gas system or process.* Owners or operators that route emissions to a fuel gas system or to a process shall meet the requirements in 40 C.F.R. §63.984, the monitoring, recordkeeping, and reporting requirements referenced therein, and the applicable recordkeeping and reporting requirements of 40 C.F.R. §§63.998 and 63.999 (Section 12.8 & 12.9 of this permit). No other provisions of this subpart apply to emissions being routed to a fuel gas system or process.

(d) N/A

[45CSR34, 40 C.F.R. §63.982, 45CSR13, R13- 2607, B.1.]

12.3. Closed vent systems.

- (a) *Closed vent system equipment and operating requirements.* Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

(1) *Collection of emissions.* Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.

(2) *Period of operation.* Closed vent systems used to comply with the provisions of this subpart shall be operated at all times when emissions are vented to, or collected by, them.

(3) *Bypass monitoring.* Except for equipment needed for safety purposes such as pressure relief devices, low leg drains, high point bleeds, analyzer vents, and open-ended valves or lines, the owner or operator shall comply with the provisions of either paragraphs (a)(3)(i) or (ii) of this section for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

- (i) Properly install, maintain, and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in 40 C.F.R. §63.998(d)(1)(ii)(A) (Section 12.8(d)(1)(ii)(A) of this permit). The flow indicator shall be installed at the entrance to any bypass line.
 - (ii) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records shall be generated as specified in 40 C.F.R. §63.998(d)(1)(ii)(B) (Section 12.8(d)(1)(ii)(B) of this permit).
- (b) *Closed vent system inspection and monitoring requirements.* The provisions of this subpart apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in 40 C.F.R. §63.998(d)(1)(iii) and (iv) (Section 12.8(d)(1)(iii) and (iv) of this permit) of this section.
 - (1) Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs (b)(2) and (3) of this section, each closed vent system shall be inspected as specified in paragraph (b)(1)(i) or (ii) of this section.
 - (i) If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (b)(1)(i)(A) and (B) of this section.
 - (A) Conduct an initial inspection according to the procedures in paragraph (c) of this section; and
 - (B) Conduct annual inspections for visible, audible, or olfactory indications of leaks.
 - (ii) If the closed vent system is constructed of ductwork, the owner or operator shall conduct an initial and annual inspection according to the procedures in paragraph (c) of this section.
 - (2) Any parts of the closed vent system that are designated, as described in 40 C.F.R. §63.998(d)(1)(i) (Section 12.8(d)(1)(i) of this permit), as unsafe to inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the conditions of paragraphs (b)(2)(i) and (ii) of this section are met.
 - (i) The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (b)(1) of this section; and
 - (ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.
 - (3) Any parts of the closed vent system that are designated, as described in 40 C.F.R. §63.998(d)(1)(i) (Section 12.8(d)(1)(i) of this permit), as difficult-to-inspect are exempt from the inspection requirements of paragraph (b)(1) of this section if the provisions of paragraphs (b)(3)(i) and (ii) of this section apply.
 - (i) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and
 - (ii) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.
 - (4) For each bypass line, the owner or operator shall comply with paragraph (b)(4)(i) or (ii) of this section.
 - (i) If a flow indicator is used, take a reading at least once every 15 minutes.
 - (ii) If the bypass line valve is secured in the non-diverting position, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line.
- (c) *Closed vent system inspection procedures.* The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.
 - (1) Each closed vent system subject to this paragraph shall be inspected according to the procedures specified in paragraphs (c)(1)(i) through (vii) of this section.
 - (i) Inspections shall be conducted in accordance with Method 21 of 40 CFR part 60, appendix A, except as specified in this section.
 - (ii) Except as provided in (c)(1)(iii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 must be for the representative composition of the process fluid and not of each individual VOC in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not organic HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted.
 - (iii) If no instrument is available at the plant site that will meet the performance criteria of Method 21 specified in paragraph (c)(1)(ii) of this section, the instrument readings may be adjusted by multiplying by the representative

- response factor of the process fluid, calculated on an inert-free basis as described in paragraph (c)(1)(ii) of this section.
- (iv) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.
 - (v) Calibration gases shall be as specified in paragraphs (c)(1)(v)(A) through (C) of this section.
 - (A) Zero air (less than 10 parts per million hydrocarbon in air); and
 - (B) Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (c)(1)(ii) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.
 - (C) If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million.
 - (vi) An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in this section. The owner or operator shall subtract the background reading from the maximum concentration indicated by the instrument.
 - (vii) If the owner or operator elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak.
- (2) The instrument probe shall be traversed around all potential leak interfaces as described in Method 21 of 40 CFR part 60, appendix A.
 - (3) Except as provided in paragraph (c)(4) of this section, inspections shall be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor.
 - (4) N/A
- (d) *Closed vent system leak repair provisions.* The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.
- (1) If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph (b)(1)(i)(B) of this section, the owner or operator shall follow the procedure specified in either paragraph (d)(1)(i) or (ii) of this section.
 - (i) The owner or operator shall eliminate the leak.
 - (ii) The owner or operator shall monitor the equipment according to the procedures in paragraph (c) of this section.
 - (2) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in paragraph (d)(3) of this section. Records shall be generated as specified in 40 C.F.R. §63.998(d)(1)(iii) (Section 12.8(d)(1)(iii) of this section) when a leak is detected.
 - (i) A first attempt at repair shall be made no later than 5 days after the leak is detected.
 - (ii) Except as provided in paragraph (d)(3) of this section, repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.
 - (3) Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in 40 C.F.R. §63.981, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

[45CSR34, 40 C.F.R. §63.983, 45CSR13, R13- 2607, B.1.]

12.4. Fuel gas systems and processes to which storage vessel, transfer rack, or equipment leak regulated material emissions are routed.

- (a) *Equipment and operating requirements for fuel gas systems and processes.*
 - (1) Except during periods of start-up, shutdown and malfunction as specified in the referencing subpart, the fuel gas

system or process shall be operating at all times when regulated material emissions are routed to it.

(2) N/A

(b) *Fuel gas system and process compliance assessment.*

(1) If emissions are routed to a fuel gas system, there is no requirement to conduct a performance test or design evaluation.

(2) If emissions are routed to a process, the regulated material in the emissions shall meet one or more of the conditions specified in paragraphs (b)(2)(i) through (iv) of this section. The owner or operator of storage vessels subject to this paragraph shall comply with the compliance demonstration requirements in paragraph (b)(3) of this section.

(i) Recycled and/or consumed in the same manner as a material that fulfills the same function in that process;

(ii) Transformed by chemical reaction into materials that are not regulated materials;

(iii) Incorporated into a product; and/or

(iv) Recovered.

(3) N/A

(c) *Statement of connection.* N/A

[45CSR34, 40 C.F.R. §63.984, 45CSR13, R13- 2607, B.1.]

12.5. Flare requirements.

(a) *Flare equipment and operating requirements.* Flares subject to this subpart shall meet the performance requirements in 40 C.F.R. 63.11(b) (General Provisions) (See Section 13.0 of this permit).

(b) *Flare compliance assessment.*

(1) The owner or operator shall conduct an initial flare compliance assessment of any flare used to comply with the provisions of this subpart. Flare compliance assessment records shall be kept as specified in 40 C.F.R. §63.998(a)(1) (Section 12.8(a)(1) of this permit) and a flare compliance assessment report shall be submitted as specified in 40 C.F.R. §63.999(a)(2) (Section 12.9(a)(2) of this permit). An owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet regulated material or total organic compound concentration when a flare is used.

(2) [Reserved]

(3) Flare compliance assessments shall meet the requirements specified in paragraphs (b)(3)(i) through (iv) of this section.

(i) Method 22 of appendix A of part 60 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours

(ii) The net heating value of the gas being combusted in a flare shall be calculated using Equation 1 :

$$H_T = K_1 \sum_{j=1}^n D_j H_j \quad [Eq. 1]$$

Where:

H_T = Net heating value of the sample, megajoules per standard cubic meter; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 millimeters of mercury (30 inches of mercury), but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$K_1 = 1.740 \times 10^{-7}$ (parts per million by volume)⁻¹ (gram-mole per standard cubic meter) (megajoules per kilocalories), where the standard temperature for gram mole per standard cubic meter is 20 °C;

n = number of sample components;

D_j = Concentration of sample component j , in parts per million by volume on a wet basis, as measured for organics by Method 18 of 40 C.F.R. part 60, appendix A, or by American Society for Testing and Materials (ASTM) D6420–99 (available for purchase from at least one of the following addresses: 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106) under the conditions specified in 40 C.F.R. §63.997(e)(2)(iii)(D)(I) through (3). Hydrogen and carbon monoxide are measured by ASTM D1946–90; and

H_j = Net heat of combustion of sample component j , kilocalories per gram mole at 25 °C and 760

- millimeters of mercury (30 inches of mercury).
- (iii) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in unit of standard temperature and pressure), as determined by Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, as appropriate, by the unobstructed (free) cross sectional area of the flare tip.
 - (iv) Flare flame or pilot monitors, as applicable, shall be operated during any flare compliance assessment.
- (c) *Flare monitoring requirements.* Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Flare flame monitoring and compliance records shall be kept as specified in 40 C.F.R. §63.998(a)(1) (Section 12.8(a)(1) of this permit) and reported as specified in 40 C.F.R. §63.999(a) (Section 12.9(a) of this permit).
- [45CSR34, 40 C.F.R. §63.987, 45CSR13, R13- 2607, B.1.]**

12.6. Implementation and enforcement.

- (a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority such as the applicable State agency. If the EPA Administrator has delegated authority to a State agency, then that agency has the authority to implement and enforce this subpart. Contact the applicable EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State agency under section 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State agency.
 - (1) Approval of alternatives to the nonopacity emissions standards in 40 C.F.R. §§63.983(a) and (d), 63.984, 63.985(a), 63.986(a), 63.987(a), 63.988(a), 63.990(a), 63.993(a), 63.994(a), and 63.995(a) under §63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart.
 - (2) [Reserved]
 - (3) Approval of major changes to test methods under 40 C.F.R. §63.7(e)(2)(ii) and (f) and as defined in 40 C.F.R. §63.90.
 - (4) Approval of major changes to monitoring under 40 C.F.R. §63.8(f) and as defined in 40 C.F.R. §63.90.
 - (5) Approval of major changes to recordkeeping and reporting under 40 C.F.R. §63.10(f) and as defined in 40 C.F.R. §63.90.

[45CSR34, 40 C.F.R. §63.992, 45CSR13, R13- 2607, B.1.]

12.7. Performance test and compliance assessment requirements for control devices.

- (a) *Performance tests and flare compliance assessments.* Where 40 C.F.R. §§63.985 through 63.995 require, or the owner or operator elects to conduct, a performance test of a control device or a halogen reduction device, or a compliance assessment for a flare, the requirements of paragraphs (b) through (d) of this section apply.
- (b) *Prior test results and waivers.* Initial performance tests and initial flare compliance assessments are required only as specified in this subpart or a referencing subpart.
 - (1) Unless requested by the Director, an owner or operator is not required to conduct a performance test or flare compliance assessment under this subpart if a prior performance test or compliance assessment was conducted using the same methods specified in 40 C.F.R. §63.997(e) or 40 C.F.R. §63.987(b)(3) (Section 12.5(b)(3) of this permit), as applicable, and either no process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test or compliance demonstration, with or without adjustments, reliably demonstrate compliance despite process changes. An owner or operator may request permission to substitute a prior performance test or compliance assessment by written application to the Director as specified in 40 C.F.R. §63.999(a)(1)(iv) (Section 12.9(a)(1)(iv) of this permit).
 - (2) Individual performance tests and flare compliance assessments may be waived upon written application to the

Director, per 40 C.F.R. §63.999(a)(1)(iii) (Section 12.9(a)(1)(iii) of this permit), if, in the Director's judgment, the source is meeting the relevant standard(s) on a continuous basis, the source is being operated under an extension or waiver of compliance, or the owner or operator has requested an extension or waiver of compliance and the Director is still considering that request.

- (3) Approval of any waiver granted under this section shall not abrogate the Director's authority under the Act or in any way prohibit the Director from later canceling the waiver. The cancellation will be made only after notification is given to the owner or operator of the source.

(c) Performance tests and flare compliance assessments schedule.

- (1) Unless a waiver of performance testing or flare compliance assessment is obtained under this section or the conditions of a referencing subpart, the owner or operator shall perform such tests as specified in paragraphs (c)(1)(i) through (vii) of this section.
- (i) Within 180 days after the effective date of a relevant standard for a new source that has an initial start-up date before the effective date of that standard; or
- (ii) Within 180 days after initial start-up for a new source that has an initial start-up date after the effective date of a relevant standard; or
- (iii) Within 180 days after the compliance date specified in a referencing subpart for an existing source, or within 180 days after start-up of an existing source if the source begins operation after the effective date of the relevant emission standard; or
- (iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or
- (v) Within 180 days after the termination date of the source's extension of compliance or a waiver of compliance for an existing source that obtains an extension of compliance under 40 C.F.R. §63.1112(a), or waiver of compliance under 40 CFR 61.11; or
- (vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f); or
- (vii) When the promulgated emission standard in a referencing subpart is more stringent than the standard that was proposed, the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after start-up of the source, whichever is later. If a promulgated standard in a referencing subpart is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance initially with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after start-up of the source, whichever is later, to demonstrate compliance with the promulgated standard.
- (2) The Director may require an owner or operator to conduct performance tests and compliance assessments at the regulated source at any time when the action is authorized by section 114 of the Act.
- (3) Unless already permitted by the applicable title V permit, if an owner or operator elects to use a recovery device to replace an existing control device at a later date, or elects to use a different flare, nonflare control device or recovery device to replace an existing flare, nonflare control device or final recovery device at a later date, the owner or operator shall notify the Director, either by amendment of the regulated source's title V permit or, if title V is not applicable, by submission of the notice specified in 40 C.F.R. §63.999(c)(7) (Section 12.9(c)(7) of this permit) before implementing the change. Upon implementing the change, a compliance demonstration or performance test shall be performed according to the provisions of paragraphs (c)(3)(i) through (v) of this section, as applicable, within 180 days. The compliance assessment report shall be submitted to the Director within 60 days of completing the determination, as provided in 40 C.F.R. §63.999(a)(1)(ii) (Section 12.9(a)(1)(ii) of this permit).
- (i) For flares used to replace an existing control device, a flare compliance demonstration shall be performed using the methods specified in 40 C.F.R. §63.987(b) (Section 12.5(b) of this permit);
- (ii) For flares used to replace an existing final recovery device that is used on an applicable process vent, the owner or operator shall comply with the applicable provisions in a referencing subpart and in this subpart;

[45CSR34, 40 C.F.R. §63.997, 45CSR13, R13- 2607, B.1.]

12.8. Recordkeeping requirements.

(a) *Compliance assessment, monitoring, and compliance records.*

- (1) *Conditions of flare compliance assessment, monitoring, and compliance records.* Upon request, the owner or operator shall make available to the Director such records as may be necessary to determine the conditions of flare compliance assessments performed pursuant to 40 C.F.R. §63.987(b) (Section 12.5(b) of this permit).
- (i) *Flare compliance assessment records.* When using a flare to comply with this subpart, record the information specified in paragraphs (a)(1)(i)(A) through (C) of this section for each flare compliance assessment performed pursuant to 40 C.F.R. §63.987(b) (Section 12.5(b) of this permit). As specified in 40 C.F.R. §63.999(a)(2)(iii)(A) (Section 12.9(a)(2)(iii)(A) of this permit), the owner or operator shall include this information in the flare compliance assessment report.
 - (A) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
 - (B) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance assessment; and
 - (C) All periods during the flare compliance assessment when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent.
- (ii) *Monitoring records.* Each owner or operator shall keep up to date and readily accessible hourly records of whether the monitor is continuously operating and whether the flare flame or at least one pilot flame is continuously present. For transfer racks, hourly records are required only while the transfer rack vent stream is being vented.
- (iii) *Compliance records.*
 - (A) Each owner or operator shall keep records of the times and duration of all periods during which the flare flame or all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in 40 C.F.R. §63.999(c)(3) (Section 12.9(c)(3) of this permit).
 - (B) Each owner or operator shall keep records of the times and durations of all periods during which the monitor is not operating.

(b) *Continuous records and monitoring system data handling.*

- (1) *Continuous records.* Where this subpart requires a continuous record, the owner or operator shall maintain a record as specified in paragraphs (b)(1)(i) through (iv) of this section, as applicable:
 - (i) A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or
 - (ii) A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.
 - (iii) Where data is collected from an automated continuous parameter monitoring system, the owner or operator may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.
 - (iv) A record as required by an alternative approved under a referencing subpart.
- (2) *Excluded data.* Monitoring data recorded during periods identified in paragraphs (b)(2)(i) through (iii) of this section shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart.
 - (i) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
 - (ii) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and
 - (iii) Start-ups, shutdowns, and malfunctions, if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by a referencing subpart and maintains the records specified in paragraph (d)(3) of this section.

- (3) *Records of daily averages.* In addition to the records specified in paragraph (a), owners or operators shall keep records as specified in paragraphs (b)(3)(i) and (ii) of this section and submit reports as specified in 40 C.F.R. §63.999(c) (Section 12.9(c) of this permit), unless an alternative recordkeeping system has been requested and approved under a referencing subpart.
- (i) Except as specified in paragraph (b)(3)(ii) of this section, daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of paragraph (b)(2) of this section for each operating day and retained for 5 years.
- (A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.
- (B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period.
- (ii) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or in the operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the owner or operator may not discard the recorded values as allowed in paragraph (b)(1)(iii) of this section.
- (4) [Reserved]
- (4) *Alternative recordkeeping* N/A
- (6) (i) For the purposes of this section, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except as provided in paragraphs (b)(6)(i)(A) and (B) of this section.
- (A) The daily average value during any start-up, shutdown or malfunction shall not be considered an excursion if the owner or operator follows the applicable provisions of the start-up, shutdown, and malfunction plan required by a referencing subpart and maintains the records specified in paragraph (d)(3) of this section.
- (B) An excused excursion, as described in paragraph (b)(6)(ii), does not count toward the number of excursions for the purposes of this subpart.
- (ii) One excused excursion for each control device or recovery device for each semiannual period is allowed. If a source has developed a start-up, shutdown and malfunction plan, and a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with the start-up, shutdown, and malfunction plan) or during periods of nonoperation of the process unit or portion thereof (resulting in cessation of the emissions to which monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count as the excused excursion for determining compliance.

(c) *Nonflare control and recovery device regulated source monitoring records.* N/A

(d) *Other records.*

- (1) *Closed vent system records.* For closed vent systems the owner or operator shall record the information specified in paragraphs (d)(1)(i) through (iv) of this section, as applicable.
- (i) For closed vent systems collecting regulated material from a regulated source, the owner or operator shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by 40 C.F.R. §63.983(b)(2)(ii) (Section 12.3(b)(2)(ii) of this permit) or (iii) of this section.
- (ii) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall keep a record of the information specified in either paragraph (d)(1)(ii)(A) or (B) of this section, as applicable.
- (A) Hourly records of whether the flow indicator specified under 40 C.F.R. §63.983(a)(3)(i) (Section 12.3(a)(3)(i) of this permit) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device

- or the flow indicator is not operating.
- (B) Where a seal mechanism is used to comply with 40 C.F.R. §63.983(a)(3)(ii) (Section 12.3(a)(3)(ii) of this permit), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.
- (iii) For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in 40 C.F.R. §63.983(d)(2) (Section 12.3(d)(2) of this permit), the information specified in paragraphs (d)(1)(iii)(A) through (F) of this section shall be recorded and kept for 5 years.
- (A) The instrument and the equipment identification number and the operator name, initials, or identification number.
- (B) The date the leak was detected and the date of the first attempt to repair the leak.
- (C) The date of successful repair of the leak.
- (D) The maximum instrument reading measured by the procedures in 40 C.F.R. §63.983(c) (Section 12.3(c) of this permit) after the leak is successfully repaired or determined to be nonrepairable.
- (E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
- (F) Copies of the Periodic Reports as specified in 40 C.F.R. §63.999(c) (Section 12.9(c) of this permit), if records are not maintained on a computerized database capable of generating summary reports from the records.
- (iv) For each instrumental or visual inspection conducted in accordance with 40 C.F.R. §63.983(b)(1) (Section 12.3(b)(1) of this permit) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
- (2) N/A
- (3) *Regulated source and control equipment start-up, shutdown and malfunction records.*
- (i) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment used to comply with this part during which excess emissions (as defined in a referencing subpart) occur.
- (ii) For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing control device emissions to a backup control device (e.g., the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a “checklist,” or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.
- (4) *Equipment leak records.* The owner or operator shall maintain records of the information specified in paragraphs (d)(4)(i) and (ii) of this section for closed vent systems and control devices if specified by the equipment leak provisions in a referencing subpart. The records specified in paragraph (d)(4)(i) of this section shall be retained for the life of the equipment. The records specified in paragraph (d)(4)(ii) of this section shall be retained for 5 years.
- (i) The design specifications and performance demonstrations specified in paragraphs (d)(4)(i)(A) through (C) of this section.
- (A) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.
- (B) The dates and descriptions of any changes in the design specifications.
- (C) A description of the parameter or parameters monitored, as required in a referencing subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
- (ii) Records of operation of closed vent systems and control devices, as specified in paragraphs (d)(4)(ii)(A) through (C) of this section.

- (A) Dates and durations when the closed vent systems and control devices required are not operated as designed as indicated by the monitored parameters.
 - (B) Dates and durations during which the monitoring system or monitoring device is inoperative.
 - (C) Dates and durations of start-ups and shutdowns of control devices required in this subpart.
 - (5) *Records of monitored parameters outside of range.* The owner or operator shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter ranges documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.
- [45CSR34, 40 C.F.R. §63.998, 45CSR13, R13- 2607, B.1.]**

12.9. Notifications and other reports.

- (a) *Performance test and flare compliance assessment notifications and reports.*
 - (1) *General requirements.* General requirements for performance test and flare compliance assessment notifications and reports are specified in paragraphs (a)(1)(i) through (iii) of this section.
 - (i) The owner or operator shall notify the Director of the intention to conduct a performance test or flare compliance assessment at least 30 days before such a compliance demonstration is scheduled to allow the Director the opportunity to have an observer present. If after 30 days notice for such an initially scheduled compliance demonstration, there is a delay (due to operational problems, etc.) in conducting the scheduled compliance demonstration, the owner or operator of an affected facility shall notify the Director as soon as possible of any delay in the original demonstration date. The owner or operator shall provide at least 7 days prior notice of the rescheduled date of the compliance demonstration, or arrange a rescheduled date with the Director by mutual agreement.
 - (ii) Unless specified differently in this subpart or a referencing subpart, performance test and flare compliance assessment reports, not submitted as part of a Notification of Compliance Status report, shall be submitted to the Director within 60 days of completing the test or determination.
 - (iii) Any application for a waiver of an initial performance test or flare compliance assessment, as allowed by 40 C.F.R. §63.997(b)(2) (Section 12.7(b)(2) of this permit), shall be submitted no later than 90 days before the performance test or compliance assessment is required. The application for a waiver shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the source performing the test.
 - (iv) Any application to substitute a prior performance test or compliance assessment for an initial performance test or compliance assessment, as allowed by 40 C.F.R. §63.997(b)(1) (Section 12.7(b)(1) of this permit), shall be submitted no later than 90 days before the performance test or compliance test is required. The application for substitution shall include information demonstrating that the prior performance test or compliance assessment was conducted using the same methods specified in 40 C.F.R. §63.997(e) or 40 C.F.R. §63.987(b)(3) (Section 12.5(b)(3) of this permit), as applicable. The application shall also include information demonstrating that no process changes have been made since the test, or that the results of the performance test or compliance assessment reliably demonstrate compliance despite process changes.
 - (2) *Performance test and flare compliance assessment report submittal and content requirements.* Performance test and flare compliance assessment reports shall be submitted as specified in paragraphs (a)(2)(i) through (iii) of this section.
 - (i) For performance tests or flare compliance assessments, the Notification of Compliance Status or performance test and flare compliance assessment report shall include one complete test report as specified in paragraph (a)(2)(ii) of this section for each test method used for a particular kind of emission point and other applicable information specified in (a)(2)(iii) of this section. For additional tests performed for the same kind of emission point using the same method, the results and any other information required in applicable sections of this subpart shall be submitted, but a complete test report is not required.
 - (ii) A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.
 - (iii) The performance test or flare compliance assessment report shall also include the information specified in

(a)(2)(iii)(A) through (C) of this section, as applicable.

(A) For flare compliance assessments, the owner or operator shall submit the records specified in 40 C.F.R. §63.998(a)(1)(i) (Section 12.8(a)(1)(i) of this section).

(B) & (C) N/A

(b) Notification of Compliance Status.

(1) to (5) N/A

(c) Periodic reports

(1) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart, including reports of periods when monitored parameters are outside their established ranges.

(2) For closed vent systems subject to the requirements of 40 C.F.R. §63.983 (Section 12.3 of this permit), the owner or operator shall submit as part of the periodic report the information specified in paragraphs (c)(2)(i) through (iii) of this section, as applicable.

(i) The information recorded in 40 C.F.R. §63.998(d)(1)(iii)(B) through (E) (Section 12.8(d)(1)(iii)(B) through (E) of this permit);

(ii) Reports of the times of all periods recorded under 40 C.F.R. §63.998(d)(1)(ii)(A) (Section 12.8(d)(1)(ii)(A) of this permit) when the vent stream is diverted from the control device through a bypass line; and

(iii) Reports of all times recorded under 40 C.F.R. §63.998(d)(1)(ii)(B) (Section 12.8(d)(1)(ii)(B) of this permit) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.

(3) For flares subject to this subpart, report all periods when all pilot flames were absent or the flare flame was absent as recorded in 40 C.F.R. §63.998(a)(1)(i)(C) (Section 12.8(a)(1)(i)(C) of this permit).

(4),(5) & (6) N/A

(7) As specified in 40 C.F.R. §63.997(c)(3) (Section 12.7(c)(3) of this permit), if an owner or operator at a facility not required to obtain a title V permit elects at a later date to replace an existing control or recovery device with a different control or recovery device, then the Director shall be notified by the owner or operator before implementing the change. This notification may be included in the facility's periodic reporting.

(d) N/A [45CSR34, 40 C.F.R. §63.999, 45CSR13, R13- 2607, B.1.]

13.0. Source-Specific Requirements [*Flare equipment and operating requirements*]

13.1. Limitations and Standards

- 13.1.1. (b) (1) Owners or operators using flares to comply with the provisions of this part (40CFR63) shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts of 40CFR63 will provide provisions stating how owners or operators using flares shall monitor these control devices.
- (2) Flares shall be steam-assisted, air-assisted, or non-assisted.
- (3) Flares shall be operated at all times when emissions may be vented to them.
- (4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of 40 CFR Part 60 shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.
- (5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (6) An owner/operator has the choice of adhering to the heat content specifications in (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

- (i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{\max} , as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946–77. (Incorporated by reference as specified in §63.14).

- (B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.
- (ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K =Constant=

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{g\text{-mole}}{scm} \right) \left(\frac{MJ}{kcal} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i =Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946–77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

H_i =Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

n =Number of sample components.

- (7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- (ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- (iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max} , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

Where:

V_{max} =Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

H_T =The net heating value as determined in paragraph (b)(6) of this section.

- (8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max} . The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation:

$$V_{\max}=8.71 = 0.708(H_T)$$

Where:

V_{\max} =Maximum permitted velocity, m/sec.

8.71=Constant.

0.708=Constant.

H_T =The net heating value as determined in 40 C.F.R § 63.11(b)(6)(ii).

[45CSR34, 40 C.F.R. §63.11.]

APPENDIX A

Emission Limits Table

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID				Additional Limit(s)	
ID Number		Number(s)		lb/hr	TPY	Limit 3	Units
1A	Tail Gas Boiler/Dryers Exhaust Stack	Boiler #1 Dryer 11 Dryer 12 Dryer 21 Dryer 22 Dryer 31 Dryer 32 Dryer 41 Dryer 42	CO	154.35	676.04		
			NO _x	76.16	333.59		
			PM ₁₀	1.73	7.60		
			SO ₂	397.54	1,741.22	2,000	ppm _v
			TSP	1.73	7.60		
			VOCs	7.44	32.58		
			COS	0.26	1.12		
			CS ₂	1.72	7.54		
			H ₂ S	2.34	10.27		
3	Unit 1 Vapor Bag Collector	U1VAP	TSP	0.07	0.33		
			PM ₁₀	0.07	0.33		
4	Unit 2 Vapor Bag Collector	U2VAP	TSP	0.07	0.33		
			PM ₁₀	0.07	0.33		
5	Unit 2 Reject Air Conveying Bag Filter	U2CREJ BF	TSP	0.03	0.14		
			PM ₁₀	0.03	0.14		
6	Unit 2 Air Conveying Bag Filter	U2CONV BF	TSP	1.06	4.65		
			PM ₁₀	1.06	4.65		
7	Unit 1 Reject Air Conveying Bag Filter	U1REJ BF	TSP	0.03	0.14		
			PM ₁₀	0.03	0.14		
8	Unit 1 Air Conveying Bag Filter	U1CONV BF	TSP	1.06	4.65		
			PM ₁₀	1.06	4.65		
9	Unit 1 Product Screening Bag Filter	U1 SCRNF	TSP	0.03	0.14		
			PM ₁₀	0.03	0.14		
10	Unit 2 Product Screening Bag Filter	U2 SCRNF	TSP	0.03	0.14		
			PM ₁₀	0.03	0.14		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
11	Packer & Bagging Surge Tank Bag Filter	PACK BF	TSP	0.05	0.22		
			PM ₁₀	0.05	0.22		
12	Unit 3 Reactor Coast Stack	Reactor #3	CO	0.43	0.26		
			NO _x	0.51	0.31		
			PM ₁₀	0.04	0.02		
			SO ₂	0.003	0.002	2,000	ppm _v
			TSP	0.04	0.02		
			VOCs	0.03	0.02		
13	Unit 4 Reactor Coast Stack	Reactor #4	CO	0.43	0.26		
			NO _x	0.51	0.31		
			PM ₁₀	0.04	0.02		
			SO ₂	0.003	0.002	2,000	ppm _v
			TSP	0.04	0.02		
			VOCs	0.03	0.02		
14	Unit 3 Vapor Bag Collector	U3VAP	TSP	0.19	0.82		
			PM ₁₀	0.19	0.82		
15	Unit 4 Vapor Bag Collector	U4VAP	TSP	0.19	0.82		
			PM ₁₀	0.19	0.82		
16	Unit 3 Reject Air Conveying Dust Collector	U3CREJ BF	TSP	0.08	0.35		
			PM ₁₀	0.08	0.35		
17	Unit 4 Reject Air Conveying Dust Collector	U4CREJ BF	TSP	0.08	0.35		
			PM ₁₀	0.08	0.35		
18	Hopper Car Loading Bag Filter	HOP BF	TSP	0.12	0.51		
			PM ₁₀	0.12	0.51		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
19	Main Boiler Stack	Boiler #1	CO	1.76	7.73		
			NO _x	2.10	9.20		
			PM ₁₀	0.16	0.70		
			SO ₂	0.01	0.06	2,000	ppm _v
			TSP	0.16	0.70		
			VOCs	0.12	0.51		
32	Standby Boiler Stack	Boiler #2	CO	0.84	0.50		
			NO _x	1.00	0.60		
			PM ₁₀	0.08	0.05		
			SO ₂	0.01	0.004	2,000	ppm _v
			TSP	0.08	0.05		
			VOCs	0.06	0.03		
40	Feedstock Oil Storage Tank #4	Stortank 4	VOCs	n/a	0.01		
41	Feedstock Oil Storage Tank #3	Stortank 3	VOCs	n/a	0.01		
42	Feedstock Oil Storage Tank #1	Stortank 1	VOCs	n/a	0.01		
43	Feedstock Oil Storage Tank #2	Stortank 2	VOCs	n/a	0.01		
44	Oil Sludge Tank	Oil Sluge Tk	VOCs	n/a	0.01		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
45A	Oil Heater A	Oil Htr A	CO	0.34	1.47		
			NO _x	0.40	1.75		
			PM ₁₀	0.03	0.13		
			SO ₂	0.002	0.01	2,000	ppm _v
			TSP	0.03	0.13		
			VOCs	0.02	0.10		
45B	Oil Heater B	Oil Htr B	CO	0.34	1.47		
			NO _x	0.40	1.75		
			PM ₁₀	0.03	0.13		
			SO ₂	0.002	0.01	2,000	ppm _v
			TSP	0.03	0.13		
			VOCs	0.02	0.10		
46	Unit 3 Reactor Natural Gas Emissions	Reactor #3	CO	0.42	0.25		
			NO _x	0.50	0.30		
			PM ₁₀	0.04	0.02		
			SO ₂	0.003	0.002	2,000	ppm _v
			TSP	0.04	0.02		
			VOCs	0.03	0.02		
47	Unit 4 Reactor Natural Gas Emissions	Reactor #4	CO	0.42	0.25		
			NO _x	0.50	0.30		
			PM ₁₀	0.04	0.02		
			SO ₂	0.003	0.002	2,000	ppm _v
			TSP	0.04	0.02		
			VOCs	0.03	0.02		
48	Unit 1 Coast Stack	Reactor #11 Reactor #12	CO	0.34	0.21		
			NO _x	0.41	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
49	Unit 2 Coast Stack	Reactor #21 Reactor #22	CO	0.34	0.21		
			NOx	0.41	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.00	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
50	Warehouse Oil Beading Area Bag Filter	BEAD BF	TSP	0.22	0.99		
			PM ₁₀	0.22	0.99		
51	Unit 1 Reactor Natural Gas Emissions Vent #11a	Reactor #11	CO	0.33	0.20		
			NOx	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
52	Unit 1 Reactor Natural Gas Emissions Vent #11b	Reactor #11	CO	0.33	0.20		
			NOx	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
53	Unit 1 Reactor Natural Gas Emissions Vent #12a	Reactor #12	CO	0.33	0.20		
			NOx	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
54	Unit 1 Reactor Natural Gas Emissions Vent #12b	Reactor #12	CO	0.33	0.20		
			NO _x	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
55	Unit 2 Reactor Natural Gas Emissions Vent #21a	Reactor #21	CO	0.33	0.20		
			NO _x	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
56	Unit 2 Reactor Natural Gas Emissions Vent #21b	Reactor #21	CO	0.33	0.20		
			NO _x	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
57	Unit 2 Reactor Natural Gas Emissions Vent #22a	Reactor #22	CO	0.40	0.20		
			NO _x	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
58	Unit 2 Reactor Natural Gas Emissions Vent #22b	Reactor #22	CO	0.33	0.20		
			NO _x	0.40	0.24		
			PM ₁₀	0.03	0.02		
			SO ₂	0.002	0.001	2,000	ppm _v
			TSP	0.03	0.02		
			VOCs	0.02	0.01		
59	Unit 3 Reactor Natural Gas Emissions Vent	Reactor #3	CO	0.42	0.25		
			NO _x	0.50	0.30		
			PM ₁₀	0.04	0.02		
			SO ₂	0.003	0.002	2,000	ppm _v
			TSP	0.04	0.02		
			VOCs	0.03	0.02		
60	Unit 4 Reactor Natural Gas Emissions Vent	Reactor #4	CO	0.42	0.25		
			NO _x	0.50	0.30		
			PM ₁₀	0.04	0.02		
			SO ₂	0.003	0.002	2,000	ppm _v
			TSP	0.04	0.02		
			VOCs	0.03	0.02		
67	Flare	FL	CO	341.94	1,497.72		
			NO _x	38.76	169.78		
			PM ₁₀	3.84	16.83		
			SO ₂	880.72	3,857.55	2,000	ppm _v
			TSP	3.84	16.83		
			VOCs	16.48	72.18		
			COS	0.57	2.49		
			CS ₂	3.81	16.70		
			H ₂ S	5.19	22.75		

APPENDIX A							
Emission	EP Description	EP	Pollutant(s)	Maximum Permitted Emissions			
Point (EP)		Unit ID		lb/hr	TPY	Additional Limit(s)	
ID Number		Number(s)				Limit 3	Units
68	Specialty Packer & Bagging Tank Bag Filter	SPEC PKBF	TSP	0.22	0.99		
			PM ₁₀	0.99	0.99		

APPENDIX B

Emission Point Stack Parameters

APPENDIX B

Emission Point (EP) ID Number	EP Description	EP Unit ID Number(s)	Inner Diameter (ft.)	Exit Gas Statistics			EP Elevation (ft)		UTM Coordinates	
				Temperature (F)	Flow (acfm)	Velocity (fps)	Ground Level	Stack Height	Nothing	Easting
1A	TGB Exhaust Stack	Boiler #1	5.00	625	74,640	44.0	640	200.00	515.162	4,405.627
3	Unit 1 Vapor Bag Collector Stack	U1VAP	2.00	350	5,146	27.3	640	94.50	515.211	4,405.251
4	Unit 2 Vapor Bag Collector Stack	U2VAP	1.83	350	7,325	42.4	640	70.00	515.219	4,405.251
5	Unit 2 Reject Air Conveying Dust Collector Stack	U2CREJ BF	1.00				640	69.00		
6	Unit 2 Air Conveying Bag Filter Stack	U2CONV BF	1.17				640	80.00		
7	Unit 1 Reject Air Conveying Dust Collector Stack	U1REJ BF	1.00				640	69.00		
8	Unit 1 Air Conveying Bag Filter Stack	U1CONV BF	1.00				640	91.50		
9	Unit 1 Product Screening Bag Filter Stack	U1 SCRNF	0.75				640	70.00		
10	Unit 2 Product Screening Bag Filter Stack	U2 SCRNF	0.75				640	70.00		
11	Packer & Bagging Surge Tank Bag Filter Stack	PACK BF	2.0 x 1.08				640	71.00		
12	Unit 3 Reactor Coast Stack	Reactor #3	4.00	500	13,580	18.0	640	130.00		
13	Unit 4 Reactor Coast Stack	Reactor #4	4.00	500	13,580	18.0	640	130.00		
14	Unit 3 Vapor Bag Collector Stack	U3VAP	1.83	350	6,730	42.5	640	79.00	515.263	4,405.297
15	Unit 4 Vapor Bag Collector Stack	U4VAP	1.83	350	6,730	42.5	640	79.00	515.249	4,405.318
16	Unit 3 Reject Air Conveying Dust Collector Stack	U3CREJ BF	1.17				640	60.00		
17	Unit 4 Reject Air Conveying Dust Collector Stack	U4CREJ BF	1.17				640	60.00		
18	Hopper Car Loading Bag Filter Stack	HOP BF	1.00				640	78.00		
19	Main Boiler Stack Stack		2.00	400	5,733	30.0	640	25.00		

APPENDIX B

Emission Point (EP) ID Number	EP Description	EP Unit ID Number(s)	- Inner Diameter (ft.)	Exit Gas Statistics			EP Elevation (ft)		UTM Coordinates	
				Temperature (F)	Flow (acfm)	Velocity (fps)	Ground Level	Stack Height	Nothing	Easting
32	Standby Boiler Stack	Boiler #2	1.67	400	5,733	44.0	640	25.00		
40	Feedstock Oil Storage Tank #4 Vent	Stortank 4	1.00				640	38.00		
41	Feedstock Oil Storage Tank #3 Vent	Stortank 3	1.67				640	38.00		
42	Feedstock Oil Storage Tank #1 Vent	Stortank 1	1.67				640	38.00		
43	Feedstock Oil Storage Tank #2 Vent	Stortank 2	1.67				640	38.00		
44	Oil Sludge Tank Vent	Oil Sluge Tk	0.33				640	15.00		
45A	Oil Heater A Stack	Oil Htr A	0.83				640	28.75		
45B	Oil Heater B Stack	Oil Htr B	0.83				640	28.75		
46	Unit 3 Reactor N/G Emissions Stack	Reactor #3	1.00	1,200	2,235	47.0	640	41.00		
47	Unit 4 Reactor N/G Emissions Stack	Reactor #4	1.00	1,200	2,235	47.0	640	41.00		
48	Unit 1 Coast Stack	Reactor #11 Reactor #12	2.67	500	10,994	33.0	640	74.25		
49	Unit 2 Coast Stack	Reactor #21 Reactor #22	2.67	500	10,994	33.0	640	75.75		
50	Warehouse Oil Beading Area Bag Filter	BEAD BF	0.25				640	0.83		
51	Unit 1 Reactor N/G Emissions Vent #11a	Reactor #11	1.00	1,200	2,235	47.0	640	33.00		
52	Unit 1 Reactor N/G Emissions Vent #11b	Reactor #11	1.00	1,200	5,497	117.0	640	33.00		
53	Unit 1 Reactor N/G Emissions Vent #12a	Reactor #12	1.00	1,200	2,235	47.0	640	33.00		
54	Unit 1 Reactor N/G Emissions Vent #12b	Reactor #12	1.00	1,200	5,497	117.0	640	33.00		

APPENDIX B

Emission Point (EP) ID Number	EP Description	EP Unit ID Number(s)	- Inner Diameter (ft.)	Exit Gas Statistics			EP Elevation (ft)		UTM Coordinates	
				Temperature (F)	Flow (acfm)	Velocity (fps)	Ground Level	Stack Height	Nothing	Easting
55	Unit 2 Reactor N/G Emissions Vent #21a	Reactor #21	1.00	1,200	2,235	47.0	640	33.00		
56	Unit 2 Reactor N/G Emissions Vent #21b	Reactor #21	1.00	1,200	5,497	117.0	640	33.00		
57	Unit 2 Reactor N/G Emissions Vent #22a	Reactor #22	1.00	1,200	2,235	47.0	640	33.00		
58	Unit 2 Reactor N/G Emissions Vent #22b	Reactor #22	1.00	1,200	5,497	117.0	640	33.00		
59	Unit 3 Reactor N/G Emissions Vent	Reactor #3	2.00	1,200	13,580	72.0	640	47.50		
60	Unit 4 Reactor N/G Emissions Vent	Reactor #4	2.00	1,200	13,580	72.0	640	47.50		
67	Flare	FL	6.00	450	41,587	65.6	640	300.00	515.195	4,405.240
68	Specialty Packer & Bagging Tank Bag Filter Stack	SPEC PKBF					640			

Appendix C
Columbian Chemicals Company: Marshall Plant
R13-2607: Identification Number 051-00019

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry.

Name (Type or Print): _____

Signature¹: _____

Title: _____

Date: _____

Telephone No.: _____ Fax No.: _____

¹This form shall be signed by a "Responsible Official". "Responsible Official" means one of the following:

- a. For a corporation: the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the Director executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

45CSR2 Monitoring Plan

45 CSR 2 MONITORING PLAN

Facility Information

Facility Name: Columbian Chemicals Company (CCC) Marshall Plant

Facility Address: Route 2, Box 229
Proctor, WV 26055
State Route 2
Moundsville, WV 26041

Facility Contact: Richard Gruca - Safety, Health and Environmental Coordinator

Facility Description:

The Marshall Plant is a carbon black manufacturing facility located in the northern panhandle of West Virginia. The facility is located approximately 12 miles south of Moundsville, in Marshall County, West Virginia.

Feedstock Storage and Heating

The facility receives feedstock oil mainly from barges on the Ohio River. The facility is also capable of receiving feedstock oil via railcar and/or tanker truck. The feedstock oil is transferred to one of four 1.5-million gallon storage tanks (Stacks 40, 41, 42, and 43). Prior to being introduced into the reactors, most feedstock oil is heated with steam. Reactor Units 3 and 4 use natural gas-fired feedstock oil heaters (Stacks 45A and 45B). (Refer to Appendix A for CCC plot plan and location of stacks)

Carbon Black Process

There are four carbon black production units at the Marshall plant. Units 1 and 2 have two parallel reactors each and produce tread-grade carbon black. Units 3 and 4 have one reactor each and produce carcass-grade carbon black.

During the initial start up, combustion of natural gas is used to bring the reactors up to the required temperature. Only during this reactor heat up sequence are the products of combustion emitted through the reactor vents (Stacks 46, 47, and 51 through 60). When the reactors are heated to the proper temperature, feedstock oil is introduced into the reaction zone of the reactors where the oil is pyrolyzed to carbon black. The carbon black and tail gas are routed through the Heat Exchangers and then to Agglomerators and on to the Unit Bag Collectors. The heat exchangers provide a means of preheating the process air before entering the reactors. Unit 1 has a waste heat boiler installed between the heat exchangers and the Agglomerator.

When the reactors are not producing carbon black, the temperature in the reactors, heat exchangers, and unit bag collectors is maintained by firing natural gas in the reactors. The

Columbian Chemicals Company	45CSR2 Monitoring Plan	Page 1
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combustion gases are vented through the unit "coast" stacks on the Unit Bag Collectors (Stacks 12, 13, 48, and 49).

The Unit Bag Collectors separate the carbon black product from the process gas, which is now known as tail gas. The tail gases from all the units are combined and used as fuel in the dryers since it has a significant amount of CO and other combustibles. The excess tail gas is emitted from a common stack (Stack 1).

The powder carbon black is transported from the Unit Bag Collectors to the Pulverizers by air conveying systems (Units 1 and 2) or by screw conveyor and bucket elevator (Units 3 and 4). In the case of the air conveying systems, Air Conveying Bag Filters (Stacks 8 and 6) separate the carbon black product from the conveying air. From the Pulverizers, the carbon black product goes to the Dense Tanks and then to the Wet Beading Machines. Each unit has one dense tank and two parallel sets of beading machines. After beading, the carbon black product is sent to the Product Dryers for moisture removal.

Product Dryers and Material Handling (Screening, Storage, and Shipping)

The eight Product Dryers (two dryers per unit) use tail gas and natural gas as a fuel source to supply the energy for drying. The products of combustion from all dryers are routed through a common stack (Stack 1A). The vapors driven off in the Product Dryers are sent to the Vapor Bag Collectors (Stacks 3, 4, 14, and 15), where any carbon black product entrained in the vapors is removed and returned to the beading system immediately downstream of the Unit Bag Collectors. The dried carbon black product is sent to Product Screening via Dryer Elevators. The Product Dryers are heated by the combustion of natural gas during periods when carbon black is not being dried ("coasting").

The Product Screens separate the carbon black pellets by size. Units 1 and 2 have Pulseair dust collectors on the Product Screen vents (Stacks 9 and 10). The reject carbon black from each unit is returned by air conveyance (Units 1 and 2) or screw conveyor (Units 3 and 4) to their respective processing systems before the pulverizers. Emissions from the return systems are controlled by Pulseair dust collectors (Stacks 7, 5, 16, and 17). Carbon black product is sent to the Bulk Storage Tanks.

There are three Bulk Storage Tanks for the carbon black product: the North and South Bulk Storage Tanks and a smaller tank for a special product produced on Unit 2. The carbon black product is shipped in bulk form from the plant by railcar, truck, and in containers. For the bulk loading, railcars or trucks park underneath a tank and carbon black is dropped into the railcar or truck. Emissions from the bulk loading process are controlled by the Hopper Car Dust Collector (Stack 18). For container loading, a "Packer" is used. Emissions from the Packer are controlled by the Packer Vent Dust Collector (Stack 11).

Steam Boilers

The facility has two natural gas-fired boilers. The 500 hp Main Boiler (Stack 19) is rated at 21 MMBtu/hr and the 250 hp Standby Boiler (Stack 32) is rated at 10 MMBtu/hr. The boilers supply steam for process and facility heating.

Columbian Chemicals Company	45CSR2 Monitoring Plan	Page 2
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MONITORING PLAN

Applicability:

Pursuant to §45-2A-3, this rule applies to any fuel burning unit(s), having a design heat input (DHI) over then (10) million BTU/hr (MMBTU), except as follows:

- a. The owner or operator of a fuel burning unit which combusts only natural gas shall be exempt from §45-2A-5 – Testing Requirements and §45-2A-6 – Visible Emission Monitoring Plan;*
- b. The owner or operator of a fuel burning unit with a DHI of less than 100 MMBTU/hr shall be exempt from periodic testing requirements of §45-2A-5 and monitoring requirements of §45-2A-6.*

Definitions:

“Fuel Burning Unit” means and includes any furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer.

“Design Heat Input” means the heat input level (in mmBTU/hr) for which an individual fuel burning equipment has been designed to operate during continuous operations.

“Opacity” means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

“Method 9 Readings” means visible emissions tests conducted in accordance with 40 CFR Part 60, Appendix A, Method 9.

“Indirect Heat Exchanger” means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters.

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FUEL BURNING UNITS

Pursuant to Section 8.2.a of §45-2-8, below is the proposed plan for monitoring compliance with the visible emission standard in Section 3 of that rule:

A. Main Boiler (Stack ID # 19)

1. Applicable Standard:

- **§45-2-3, 3.1:** *No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than (10) percent opacity based on a six minute block average.*
- **§45-2-3, 3.1:** *Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.*

2. Monitoring Method: Pursuant to Sections 3.1.b of §45-2A-3, CCC is exempt from the Testing Requirements - §45-2A-5 and Visible Emission Monitoring Plan Requirements - §45-2A-6 because the fuel burning unit combusts only natural gas.

3. Recordkeeping and Reporting Requirements

- Pursuant to §45-2A-7, 7.1.a, CCC shall maintain record for the operating schedule, and the quality and quantity of fuel burned in each fuel burning unit and shall include
 1. Date and Time of start-up and shut down;
 2. Quantity of fuel consumed in a monthly basis
- Pursuant to §45-2A-7, 7.1.b, CCC shall maintain all required records on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement, and reporting.

B. Standby Boiler (Stack ID # 32)

1. Applicable Standard:

- **§45-2-3, 3.1:** *No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than (10) percent opacity based on a six minute block average.*
- **§45-2-3, 3.1:** *Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.*

Columbian Chemicals Company	45CSR2 Monitoring Plan	Page 4
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2. **Monitoring Method:** Pursuant to Sections 3.1. of §45-2A-3, CCC is exempt from testing, monitoring, recordkeeping and reporting requirements because the fuel burning unit has a DHI not greater than 10 mmBTU/hr.

C. Oil Heater (Stack ID # 45A)

1. Applicable Standard:

- **§45-2-3, 3.1:** *No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than (10) percent opacity based on a six minute block average.*
- **§45-2-3, 3.1:** *Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.*

2. **Monitoring Method:** Pursuant to Sections 3.1. of §45-2A-3, CCC is exempt from testing, monitoring, recordkeeping and reporting requirements because the fuel burning unit has a DHI not greater than 10 mmBTU/hr.

D. Oil Heater (Stack ID # 45B)

1. Applicable Standard:

- **§45-2-3, 3.1:** *No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than (10) percent opacity based on a six minute block average.*
- **§45-2-3, 3.1:** *Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.*

2. **Monitoring Method:** Pursuant to Sections 3.1. of §45-2A-3, CCC is exempt from testing, monitoring, recordkeeping and reporting requirements because the fuel burning unit has a DHI not greater than 10 mmBTU/hr.

Columbian Chemicals Company	45CSR2 Monitoring Plan	Page 5
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45CSR7 Monitoring Plan



April 13, 2005

John A. Benedict
Director
WVDEP
Division of Air Quality
601-57th Street
Charleston, WV 25304

RE: Visible Emissions Monitoring Plan and Performance Testing
Permit No. R13-2607, Plant ID No. 05100019

Dear Mr. Benedict:

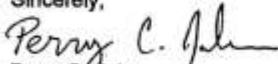
Pursuant to Permit No R13-2607 Specific Requirement A.6.h, Columbian Chemicals Company (CCC) hereby submits the following:

- CCC's, Marshall Plant, Visible Emissions Monitoring Plan for emissions from the tail gas combustion sources in accordance with 45 CSR 7&7A.

Specific Requirement A.7.b of the referenced permit also requires CCC to submit a Testing Plan to conduct performance testing to verify the accuracy of the tail gas combustion emission factors and grade specific yields. At this time, Columbian proposes that a plan be submitted following completion of construction under Permit R13-2607. Pursuant to Specific Requirement A.7.b, the associated testing must be completed no later than October 16, 2006. CCC proposes that we will submit the testing plan to the Director no later than 30 days prior to conducting that testing.

Should you have any questions, please call Mr. Perry John at (770) 792-9434.

Sincerely,


Perry C. John
Sr. Environmental Engineer

Encl.

Certified Mail # 70001530000209511484

1800 West Oak Commons Court Marietta, Georgia 30062-2253 (770) 792-9400
www.columbianchemicals.com



Cc: Blair
Pittman
Dancause
Joe Kessler, WVDEP
File

45 CSR 7 MONITORING PLAN

Facility Information

Facility Name: Columbian Chemicals Company (CCC) Marshall Plant

Facility Address: Route 2, Box 229
Proctor, WV 26055
State Route 2
Moundsville, WV 26041

Facility Contact: Michael Blair - Safety, Health and Environmental Coordinator

Facility Description:

The Marshall Plant is a carbon black manufacturing facility located in the northern panhandle of West Virginia. The facility is located approximately 12 miles south of Moundsville, in Marshall County, West Virginia.

Feedstock Storage and Heating

The facility receives feedstock oil mainly from barges on the Ohio River. The facility is also capable of receiving feedstock oil via railcar and/or tanker truck. The feedstock oil is transferred to one of four 1.5-million gallon storage tanks (Stacks 40, 41, 42, and 43). Prior to being introduced into the reactors, most feedstock oil is heated with steam. Reactor Units 3 and 4 use natural gas-fired feedstock oil heaters (Stacks 45A and 45B). (Refer to Appendix A for CCC plot plan and location of current and future stacks)

Carbon Black Process

There are four carbon black production units at the Marshall plant. Units 1 and 2 have two parallel reactors each and produce tread-grade carbon black. Units 3 and 4 have one reactor each and produce carcass-grade carbon black.

During the initial start up, combustion of natural gas is used to bring the reactors up to the required temperature. Only during this reactor heat up sequence are the products of combustion emitted through the reactor vents (Stacks 46, 47, and 51 through 60). When the reactors are heated to the proper temperature, feedstock oil is introduced into the reaction zone of the reactors where the oil is pyrolyzed to carbon black. The carbon black and tail gas are routed through the Heat Exchangers and then to Agglomerators and on to the Unit Bag Collectors. The heat exchangers provide a means of preheating the process air before entering the reactors. Unit 1 has a waste heat boiler installed between the heat exchangers and the Agglomerator.

Columbian Chemicals Company	45CSR7 Monitoring Plan	Page 1
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When the reactors are not producing carbon black, the temperature in the reactors, heat exchangers, and unit bag collectors is maintained by firing natural gas in the reactors. The combustion gases are vented through the unit "coast" stacks on the Unit Bag Collectors (Stacks 12, 13, 48, and 49).

The Unit Bag Collectors separate the carbon black product from the process gas, which is now known as tail gas. The tail gases from all the units are combined and used as fuel in the dryers since it has a significant amount of CO and other combustibles. The excess tail gas is emitted from a common stack (Stack 1). When construction is completed (associated with January 13, 2005 permit) this tail gas will either be flared from the new Flare Stack (Stack 67) or combusted for use in a new Tail Gas Boiler and sent to the existing Dryer Stack (Stack 1A). At that time the existing common stack (Stack 1) will no longer be used.

The powder carbon black is transported from the Unit Bag Collectors to the Pulverizers by air conveying systems (Units 1 and 2) or by screw conveyor and bucket elevator (Units 3 and 4). In the case of the air conveying systems, Air Conveying Bag Filters (Stacks 8 and 6) separate the carbon black product from the conveying air. From the Pulverizers, the carbon black product goes to the Dense Tanks and then to the Wet Beading Machines. Each unit has one dense tank and two parallel sets of beading machines. After beading, the carbon black product is sent to the Product Dryers for moisture removal.

Product Dryers and Material Handling (Screening, Storage, and Shipping)

The eight Product Dryers (two dryers per unit) use tail gas and natural gas as a fuel source to supply the energy for drying. The products of combustion from all dryers are routed through a common stack (Stack 1A). The vapors driven off in the Product Dryers are sent to the Vapor Bag Collectors (Stacks 3, 4, 14, and 15), where any carbon black product entrained in the vapors is removed and returned to the beading system immediately downstream of the Unit Bag Collectors. The dried carbon black product is sent to Product Screening via Dryer Elevators. The Product Dryers are heated by the combustion of natural gas during periods when carbon black is not being dried ("coasting").

The Product Screens separate the carbon black pellets by size. Units 1 and 2 have Pulseair dust collectors on the Product Screen vents (Stacks 9 and 10). The reject carbon black from each unit is returned by air conveyance (Units 1 and 2) or screw conveyor (Units 3 and 4) to their respective processing systems before the pulverizers. Emissions from the return systems are controlled by Pulseair dust collectors (Stacks 7, 5, 16, and 17). Carbon black product is sent to the Bulk Storage Tanks.

There are three Bulk Storage Tanks for the carbon black product: the North and South Bulk Storage Tanks and a smaller tank for a special product produced on Unit 2. The carbon black product is shipped in bulk form from the plant by railcar, truck, and in containers. For the bulk loading, railcars or trucks park underneath a tank and carbon black is dropped into the railcar or truck. Emissions from the bulk loading process are controlled by the Hopper Car Dust Collector (Stack 18). For container loading, a "Packer" is used. Emissions from the Packer are controlled by the Packer Vent Dust Collector (Stack 11).

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Steam Boilers

The facility has two natural gas-fired boilers and a construction permit to install a tail gas fired boiler. The 500 hp Main Boiler (Stack 19) is rated at 21 MMBtu/hr and the 250 hp Standby Boiler (Stack 32) is rated at 10 MMBtu/hr. The yet to be constructed new Tail Gas Boiler (Stack 1A) is rated at 20 MMBtu/hr. The boilers supply steam for process and facility heating.

Columbian Chemicals Company	45CSR7 Monitoring Plan	Page 3
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MONITORING PLAN

Applicability:

Pursuant to Permit No. R13-2607 and 45CSR7, this rule applies to the emission of smoke and/or particulate matter into the open air from manufacturing source operations.

Definitions:

"Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

"Method 9 Readings" means visible emissions tests conducted in accordance with 40 CFR Part 60, Appendix A, Method 9.

"Manufacturing Process" means any action, operation or treatment, embracing chemical, industrial or manufacturing efforts, and employing, for example, heat treating furnaces, by-product coke plants, core-baking ovens, mixing kettles, cupolas, blast furnaces, open hearth furnaces, heating and reheating furnaces, puddling furnaces, sintering plants, electric steel furnaces, ferrous and non-ferrous foundries, kilns, stills, driers, crushers, grinders, roasters, and equipment used in connection therewith and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter or gaseous matter.

"Particulate Matter" means any material, except uncombined water, that exists in a finely divided form as a liquid or solid.

Columbian Chemicals Company	45CSR7 Monitoring Plan	Page 4
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TAIL GAS COMBUSTION SOURCES

Pursuant to §45-7, below is the plan for monitoring compliance with the visible emission standard in Section 3 of that rule:

Existing – Dryer/Tail Gas Boiler Stack (Stack ID # 1A) & Future - Flare Stack (Stack ID #67)

1. Applicable Standard:

- §45-7-3, 3.1: *No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.*
- §45-7-3, 3.2: *The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.*

2. Monitoring Method:

- All monitoring will be conducted pursuant to Sections 2.1.a-b of §45-7A-2. A visible emissions observation of the tail gas combustion stacks will be conducted daily with the attached form in Appendix B. For any observation that records opacity greater than 20%, a full Method 9 observation will be made. Observations and corrective action will be taken pursuant to Table 1 below. All personnel that conduct observations will have a current Method 9 certification.

Table 1

Opacity (%)	Action	Documentation
<20%	Within a reasonable period, take corrective action to eliminate the problem.	Maintain record of daily observations noting all days during which any visible particulate emissions were observed, describe the corrective actions taken to eliminate the visible emissions, and, if applicable, the results of the Method 9 Reading.
20% - 40%	Perform Method 9 visual emission reading and take corrective action to eliminate the problem.	
>40%	Cease operation of source(s) contributing to visible emissions, take corrective action prior to restarting.	

- Mass Emission Test Procedures as per §45-7A-3 will be followed to conduct stack testing and emission factor verification after the permitted construction is completed in association with the performance testing required under Permit R13-2607 Specific Requirement A.7.b or at the Director's request.

3. Recordkeeping and Reporting Requirements

- Pursuant to §45-7A-2, 2.1.a.2.B, CCC shall maintain record of the following data:
 1. Name of the plant, emission location, type facility, observer's name and title, and the date on a field data sheet.

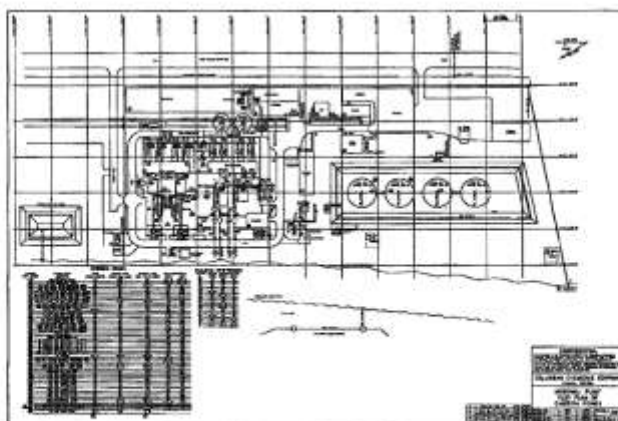
Columbian Chemicals Company	45CSR7 Monitoring Plan	Page 5
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2. The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and completed.
- Pursuant to Permit R13-2607 Specific Requirement A.6.m, CCC shall maintain all required records on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement, and reporting.
 - Records of all monitoring will be made available at the Director's (or his appointee) request.

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Appendix A
Plot Plan – Columbian Chemicals Company

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Appendix B
Monitoring Check Sheet

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MONTH: _____ YEAR: _____

CCC - Marshall Plant
DAILY COMBUSTION STACK EMISSIONS CHECK

DAY	STACK	TIME	OBSERVER'S NAME AND TITLE	SUN TO YOUR BACK?	90 DEG. FROM PLUME?	ESTIMATED DISTANCE TO EMISSION LOCATION (ft)	APPROXIMATE WIND DIRECTION (draw arrow)	ESTIMATED WIND SPEED	DESCRIPTION OF THE SKY CONDITION	PLUME BACKGROUND	VISIBLE EMISSIONS?	FULL METHOD 9 REQUIRED?	DESCRIBE CORRECTIVE ACTION IF NEEDED
1	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
2	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
3	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
4	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
5	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
6	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
7	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
8	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
9	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
10	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
11	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
12	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
13	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
14	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	
15	DRYER (1A) FLARE (67)			Y/N	Y/N						Y/N	Y/N	

MONTH: _____ YEAR: _____

CCC - Marshall Plant
DAILY COMBUSTION STACK EMISSIONS CHECK

DAY	STACK	TIME	OBSERVER'S NAME AND TITLE	SUN TO YOUR BACK?	90 DEG. FROM PLUME?	ESTIMATED DISTANCE TO EMISSION LOCATION (ft)	APPROXIMATE WIND DIRECTION (draw arrow)	ESTIMATED WIND SPEED	DESCRIPTION OF THE SKY CONDITION	PLUME BACKGROUND	VISIBLE EMISSIONS?	FULL METHOD 9 REQUIRED?	DESCRIBE CORRECTIVE ACTION IF NEEDED
16	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
17	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
17	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
18	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
19	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
19	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
20	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
20	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
21	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
21	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
22	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
22	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
23	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
23	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
24	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
24	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
25	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
25	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
26	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
26	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
27	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
27	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
28	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
28	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
29	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
29	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
30	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
30	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	
31	DRYER (1A)			Y/N	Y/N		○				Y/N	Y/N	
31	FLARE (67)			Y/N	Y/N		○				Y/N	Y/N	

45CSR10 Monitoring Plan

45 CSR 10 MONITORING PLAN

Facility Information

Facility Name: Columbian Chemicals Company (CCC) Marshall Plant

Facility Address: Route 2, Box 229
Proctor, WV 26055
State Route 2
Moundsville, WV 26041

Facility Contact: Richard Gruca - Safety, Health and Environmental Coordinator

Facility Description:

The Marshall Plant is a carbon black manufacturing facility located in the northern panhandle of West Virginia. The facility is located approximately 12 miles south of Moundsville, in Marshall County, West Virginia.

Feedstock Storage and Heating

The facility receives feedstock oil mainly from barges on the Ohio River. The facility is also capable of receiving feedstock oil via railcar and/or tanker truck. The feedstock oil is transferred to one of four 1.5-million gallon storage tanks (Stacks 40, 41, 42, and 43). Prior to being introduced into the reactors, most feedstock oil is heated with steam. Reactor Units 3 and 4 use natural gas-fired feedstock oil heaters (Stacks 45A and 45B). (Refer to Appendix A for CCC plot plan and location of stacks)

Carbon Black Process

There are four carbon black production units at the Marshall plant. Units 1 and 2 have two parallel reactors each and produce tread-grade carbon black. Units 3 and 4 have one reactor each and produce carcass-grade carbon black.

During the initial start up, combustion of natural gas is used to bring the reactors up to the required temperature. Only during this reactor heat up sequence are the products of combustion emitted through the reactor vents (Stacks 46, 47, and 51 through 60). When the reactors are heated to the proper temperature, feedstock oil is introduced into the reaction zone of the reactors where the oil is pyrolyzed to carbon black. The carbon black and tail gas are routed through the Heat Exchangers and then to Agglomerators and on to the Unit Bag Collectors. The heat exchangers provide a means of preheating the process air before entering the reactors. Unit 1 has a waste heat boiler installed between the heat exchangers and the Agglomerator.

When the reactors are not producing carbon black, the temperature in the reactors, heat exchangers, and unit bag collectors is maintained by firing natural gas in the reactors. The

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combustion gases are vented through the unit "coast" stacks on the Unit Bag Collectors (Stacks 12, 13, 48, and 49).

The Unit Bag Collectors separate the carbon black product from the process gas, which is now known as tail gas. The tail gases from all the units are combined and used as fuel in the dryers since it has a significant amount of CO and other combustibles. The excess tail gas is emitted from a common stack (Stack 1).

The powder carbon black is transported from the Unit Bag Collectors to the Pulverizers by air conveying systems (Units 1 and 2) or by screw conveyor and bucket elevator (Units 3 and 4). In the case of the air conveying systems, Air Conveying Bag Filters (Stacks 8 and 6) separate the carbon black product from the conveying air. From the Pulverizers, the carbon black product goes to the Dense Tanks and then to the Wet Beading Machines. Each unit has one dense tank and two parallel sets of beading machines. After beading, the carbon black product is sent to the Product Dryers for moisture removal.

Product Dryers and Material Handling (Screening, Storage, and Shipping)

The eight Product Dryers (two dryers per unit) use tail gas and natural gas as a fuel source to supply the energy for drying. The products of combustion from all dryers are routed through a common stack (Stack 1A). The vapors driven off in the Product Dryers are sent to the Vapor Bag Collectors (Stacks 3, 4, 14, and 15), where any carbon black product entrained in the vapors is removed and returned to the beading system immediately downstream of the Unit Bag Collectors. The dried carbon black product is sent to Product Screening via Dryer Elevators. The Product Dryers are heated by the combustion of natural gas during periods when carbon black is not being dried ("coasting").

The Product Screens separate the carbon black pellets by size. Units 1 and 2 have Pulseair dust collectors on the Product Screen vents (Stacks 9 and 10). The reject carbon black from each unit is returned by air conveyance (Units 1 and 2) or screw conveyor (Units 3 and 4) to their respective processing systems before the pulverizers. Emissions from the return systems are controlled by Pulseair dust collectors (Stacks 7, 5, 16, and 17). Carbon black product is sent to the Bulk Storage Tanks.

There are three Bulk Storage Tanks for the carbon black product: the North and South Bulk Storage Tanks and a smaller tank for a special product produced on Unit 2. The carbon black product is shipped in bulk form from the plant by railcar, truck, and in containers. For the bulk loading, railcars or trucks park underneath a tank and carbon black is dropped into the railcar or truck. Emissions from the bulk loading process are controlled by the Hopper Car Dust Collector (Stack 18). For container loading, a "Packer" is used. Emissions from the Packer are controlled by the Packer Vent Dust Collector (Stack 11).

Steam Boilers

The facility has two natural gas-fired boilers. The 500 hp Main Boiler (Stack 19) is rated at 21 MMBtu/hr and the 250 hp Standby Boiler (Stack 32) is rated at 10 MMBtu/hr. The boilers supply steam for process and facility heating.

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MONITORING PLAN

Definitions:

"Manufacturing Process" means any action, operation or treatment embracing chemical, industrial, or manufacturing efforts, and employing, for example, heat-treating furnaces, by-product coke plants, core-baking ovens, mixing kettles, cupolas, blast furnaces, open hearth furnaces, heating and reheating furnaces, puddling furnaces, sintering plants, electric steel furnaces, ferrous and non-ferrous foundries, kilns, stills, pipe stills, reformers, furnaces associated with manufacturing processes, driers, crushers, grinders, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit sulfur dioxide or other sulfur compounds 45 CSR 10, §2.11.

"Fuel Burning Unit" means and includes any furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer.

"Indirect Heat Exchanger" means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters.

"Fuel Quality Analysis" means the sulfur content and the BTU content.

"Process Heater" means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

"Source Operation" means the last operation in a manufacturing process preceding the emission of air pollutants which operation:

- a. Results in the separation of the air pollutant from the process materials or in the conversion of the process materials into air pollutants; and
- b. Is not an air pollution abatement operation.

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FUEL BURNING UNITS

Pursuant to Section 8.2.c of §45-10-8, below is the proposed plan for monitoring compliance with the sulfur dioxide weight emission standards expressed in Section 3 of that rule:

A. Boiler Stack (Stack ID # 19)

1. Applicable Standard:

- **§45-10-3, 3.1.e.:** *The total allowable amount of sulfur dioxide (SO₂) discharge into the open air is the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.*
- **§45-10-3, 3.8:** *Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time.*

2. Monitoring Method:

- Pursuant to Sections 3.1.b of §45-10A-3, CCC is exempt from Testing, Monitoring, Recordkeeping, and Reporting Requirements because the fuel burning unit only combusts natural gas.

B. Standby Boiler Stack (Stack ID # 32)

1. Applicable Standard:

- **§45-10-33.1.e:** *The total allowable amount of sulfur dioxide (SO₂) discharge into the open air is the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.*
- **§45-10-3, 3.8:** *Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time.*

2. Monitoring Method:

- Pursuant to Sections 3.1.a and 3.1.b of §45-10A-3, CCC is exempt from Testing, Monitoring, Recordkeeping, and Reporting Requirements because the fuel burning unit has a design heat input of less than 10 MMBTU per hour and the fuel burning unit only combusts natural gas.

C. Oil Heater (Stack ID # 45A)

1. Applicable Standard:

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- **§45-10-3, 3.1.e.:** *The total allowable amount of sulfur dioxide (SO₂) discharge into the open air is the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.*
- **§45-10-3, 3.8:** *Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time.*

2. Monitoring Method:

- Pursuant to Sections 3.1.a and 3.1.b of §45-10A-3, CCC is exempt from Testing, Monitoring, Recordkeeping, and Reporting Requirements because the fuel burning unit has a design heat input of less than 10 MMBTU per hour and the fuel burning unit only combusts natural gas.

D. Oil Heater (Stack ID # 45B)

1. Applicable Standard:

- **§45-10-3, 3.1.e.:** *The total allowable amount of sulfur dioxide (SO₂) discharge into the open air is the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.*
- **§45-10-3, 3.8:** *Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time.*

2. Monitoring Method:

- Pursuant to Sections 3.1.a and 3.1.b of §45-10A-3, CCC is exempt from Testing, Monitoring, Recordkeeping, and Reporting Requirements because the fuel burning unit has a design heat input of less than 10 MMBTU per hour and the fuel burning unit only combusts natural gas.

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MANUFACTURING PROCESS SOURCES

A. Coast Stacks (Stack ID #s 12, 13, 48 & 49) and Reactor Vents (Stack ID #s 46, 47, 51 – 60)

1. Applicable Standard:

- **§45-10-4, 4.1:** *Total allowable emissions into the open air from any source operation shall not exceed a sulfur dioxide concentration of 2,000 parts per million by volume.*
- **§45-10-4, 4.2:** *Compliance with the allowable sulfur dioxide concentration limitation from manufacturing process source operations shall be based on a block three (3) hour averaging time.*

2. Monitoring Method:

- Pursuant to Sections 3.1.c of §45-10A-3, CCC is exempt from Testing, Monitoring, Recordkeeping, and Reporting Requirements because these manufacturing process sources have the potential to emit less than 500 pounds per year of sulfur dioxides.

B. Bag Collector Stack (Stack ID # 1) & Dryer Stack (Stack ID # 1A)

1. Applicable Standard:

- **§45-10-4, 4.1:** *Total allowable emissions into the open air from any source operation shall not exceed a sulfur dioxide concentration of 2,000 parts per million by volume.*
- **§45-10-4, 4.2:** *Compliance with the allowable sulfur dioxide concentration limitation from manufacturing process source operations shall be based on a block three (3) hour averaging time.*

2. Monitoring Method:

- **§45-10-8, 8.2.c:** *The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with sections 3, 4, and 5 of this rule by testing and/or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each unit.*
- **§45-10A-6, 6.2.b.1:** *The owner or operator of a manufacturing process source(s) may for good cause petition the Director for an alternative to CEMS.*
- **§45-10A-6, 6.4:** *An approved monitoring plan shall contain, at a minimum, the following items:*
 - *a list of parameters to be monitored – 45 CSR 10A, §6.4.a;*

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- the monitoring method and frequency for each parameter to be monitored – 45 CSR 10A, §6.4.b;
- the compliance range for each parameter to be monitored – 45 CSR 10A, §6.4.c;
- an explanation of how the parameters to be monitored were chosen, and how they are indicative of compliance – 45 CSR 10A, §6.4.d;
- an explanation of how the compliance ranges were established – 45 CSR 10A, §6.4.e;
- a response plan to be implemented during excursions – 45 CSR 10A, §6.4.f; and
- a proposed compliance testing schedule for manufacturing process source(s) and combustion source(s) – 45 CSR 10A, §6.4.g.

Parameters to be Monitored

Parameters to be Monitored	Frequency	Method	Compliance Range
Feedstock Sulfur Content	Monthly	ASTM	Not to exceed 2.5%
Carbon Black Production	Daily	Facility Records	Total Carbon Black Production not to Exceed 600,000 lbs/day based upon 1997-1998 Emissions inventory

Pursuant to Consent Order CO-SIP-2000-3 (see Appendix B) between Columbian Chemicals Company (CCC) and the West Virginia Department of Environmental Protection – Office of Air Quality (OAQ), the sulfur content of the feedstock used in the reactor furnaces shall not exceed 2.5 % sulfur by weight.

CCC shall conduct monthly sampling of the feedstock, using applicable ASTM methods, to determine sulfur content. CCC is also required to request a Certificate of Analysis from each feedstock supplier or feedstock blending facility. Feedstock oil shall be sampled at a location between the storage tanks and the injection point into the reactor furnaces. CCC shall collect and analyze two (2) samples on each of three (3) non-consecutive days. The results of the sampling shall not be averaged. The Director may request that the Company collect and analyze a reasonable number of additional samples.

Selection of Parameters

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Parameters chosen for monitoring have been identified under the current CCC-OAQ Consent Order. These values in addition to emission factors established by CCC will provide the necessary data in determining compliance with the 2,000 ppm standard.

Response Plan

CCC shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess SO₂ emission rate within twenty-four (24) hours of becoming aware of such condition. The Company shall also file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

- A. A detailed explanation of the factors involved or causes of the malfunction;
- B. The date and time of duration (with starting and ending times) of the period of excess emissions;
- C. An estimate of the type of pollutant and total amount of excess emissions discharged during the malfunction period;
- D. The maximum emission rate determined during the malfunction in units of the applicable emissions standard;
- E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction, and;
- F. A detailed explanation of the corrective measures or plan that will be implemented to prevent a recurrence of the malfunction and a schedule for its implementation.

Proposed Compliance Testing Schedule

Testing requirements of 45 CSR 10A, §5.2.a will likely be addressed in the approval of the PSD permit application under 45 CSR 14. Such requirements will likely be addressed contingent upon actual completion of the PSD permit application process. The language of 45 CSR 10A, §5.2.a requiring that "Compliance tests shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 or other equivalent EPA testing method approved by the Director" shall be the language relied upon by CCC in petitioning the Director for approval of an alternative to that which is set forth in the interpretive rule.

3. Exception Reporting

- **§45-10A-7, 7.2.b.:** *Each owner or operator employing monitoring pursuant to subsection 6.4 shall submit a "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" to the Director on a quarterly basis; the Director*

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may, on a case by case basis, require more frequent reporting if the Director deems it necessary to accurately assess the compliance status of the fuel burning unit(s). All reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

CCC will submit the exception reports to the OAQ to meet the requirements for a Non-CEMS Monitoring Summary Report and the Non-CEMS Excursion and Monitoring Plan Performance Report identified in §45-10A-7, 7.2.b.3. The reports will be submitted to the OAQ within 30 days of the end of the quarter.

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COMBUSTION SOURCE(S)

A. Dryer Stack (Stack ID # 1A)

1. Applicable Standard:

- **§45-10-5, 5.1:** *No person shall cause, suffer, allow, or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA.*

In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.

- **§45-10-5, 5.4:** *Compliance with the allowable hydrogen sulfide concentration limitations for combustion source operation(s) shall be based on a block three (3) hour averaging time.*

2. Monitoring Method:

- **§45-10A-6, 6.3.a:** *The owner or operator of a combustion source(s) shall submit, to the Director for approval, a monitoring plan for each combustion source(s) that describes the method the owner or operator will use to monitor compliance with the standard set forth in section 5 of 45CSR10. The owner or operator of a combustion source(s) may use CEMS, which shall be deemed to satisfy the requirements of an approved monitoring plan.*
- **§45-10A-6 6.3.b:** *The owner or operator of a combustion source(s) which has a refinery process gas stream or any other process gas stream that contains an average hydrogen sulfide concentrations greater than or equal to 45 grains per 100 cubic feet shall use CEMS to satisfy the requirements of an approved monitoring plan.*
- **§45-10A-6 6.3.b.1:** *The owner or operator of a combustion source(s) may for good cause petition the Director for an alternative to CEMS.*

Pursuant to Consent Order CO-SIP 2000-3 (CO), CCC is required to apply for and obtain a PSD permit which is not consistent with the timing requirements of 45 CSR 10A concerning the installation of CEMs. It is recognized that approval of the PSD permit will likely require the installation of CEMs or some other approved or alternative, but that such installation will not be complete in a timely fashion for the purposes of Reg. 10A. CCC suggests that the permit application requirements described in Paragraphs IV.4 and 5 and V. 3 of the CO would be adequate to meet the monitoring requirements of 45 CSR 10A, §6.3 for combustion sources. Specifically, Paragraphs 4 and 5 of the CO will qualify as an good cause for delay in the installation of CEMs as provided in 45 CSR 10A, §6.3.b.1.

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In addition, CCC recognizes that the testing requirements of 45 CSR 10A, §5.2.a would likely be addressed in the approval of the PSD permit application under 45 CSR 14. Such requirements will likely be addressed contingent upon actual completion of the PSD permit application process. The language of 45 CSR 10A, §5.3.a requiring that "Compliance tests shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 or other equivalent EPA testing method approved by the Director" shall be the language relied upon by CCC in petitioning the Director for approval of an alternative to that which is set forth in the interpretive rule.

3. Recordkeeping and Reporting Requirements:

- **§45-10A-7, 7.1.b.:** *The owner or operator of a combustion source shall maintain record of the operating schedule and the quantity and quality of fuel consumed in each unit. Such records shall include, but no be limited to, the date and time of the start-up and shutdown, the quantity of fuel consumed on a daily basis, and a periodic fuel quality analysis. The frequency of periodic fuel quality analysis shall be established in an approved monitoring plan.*
- **§45-10A-7, 7.1.d.:** *For fuel burning units, manufacturing process sources, and combustion sources, records of all required monitoring data as established in an approved monitoring plan and support information shall be maintained on site for a period of at least five years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings fort continuous monitoring instrumentation, and copies of all required reports.*

CCC recognizes that the testing requirements of 45 CSR 10A, §5.3.a will likely be addressed in the approval of the PSD permit application under 45 CSR 14. Such requirements will likely be addressed contingent upon actual completion of the PSD permit application process. The language of 45 CSR 10A, §5.2.a requiring that "Compliance tests shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 or other equivalent EPA testing method approved by the Director" shall be the language relied upon by CCC in petitioning the Director for approving an alternative to that which is set forth in the interpretive rule.

Based upon analysis of tail gas composition generated in the carbon black manufacturing process, CCC has established fuel quality values for tailgas at the Marshall facility. In addition to the requirements identified in the CO, CCC will maintain records of the operating schedule, quantity of fuel consumed and update the fuel quality analysis as new data becomes available.

4. Exception Reporting

- **§45-10A-7, 7.2.b.:** *Each owner or operator employing monitoring pursuant to subsection 6.4 shall submit a "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" to the Director on a quarterly basis; the Director may, on a case by case basis, require more frequent reporting if the Director deems it necessary to accurately assess the compliance status of the fuel burning unit(s). All*

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reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

CCC will submit the exception reports to the OAQ to meet the requirements for a Non-CEMS Monitoring Summary Report and the Non-CEMS Excursion and Monitoring Plan Performance Report identified in §45-10A-7, 7.2.b.3. The reports will be submitted to the OAQ within 30 days of the end of the quarter.

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Attachment A (MACT Extension) with Construction Schedule

Division of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, WV 25304
Phone: (304) 926-3647
Fax: (304) 926-3637

West Virginia Department of Environmental Protection

Bob Wise
Governor

Stephanie R. Timmermeyer
Cabinet Secretary

July 27, 2004

CERTIFIED MAIL
7003 1010 0003 5767 9362

Gary P. Juno
Vice President
Safety, Health & Environmental Affairs
Columbian Chemicals Company
1800 West Oak Commons Court
Marietta, Georgia 30062-2253

I.D. No. 051-00019 Reg. 34 (Subpart YY) Carbon Black
Company Columbian Chemicals
Facility Moundsville Region
Initials RMC

RE: Approval of extension of compliance and performance testing/compliance assessment
until April 17, 2006
Carbon Black MACT - 40 CFR 63, Subpart YY
Columbian Chemicals Company Moundsville, WV Plant ID No. 051-00019

Dear Mr. Juno:

The West Virginia Division of Air Quality (DAQ) received a request from Columbian Chemicals Company for a compliance extension per provisions in 40 CFR 63.1112(a)(4)(I) of the National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards. Specifically, Columbian has requested a compliance extension for provisions in the Carbon Black MACT at 40 CFR 63, Subpart YY. The regulation was proposed on December 6, 2000 and promulgated on July 12, 2002. The Carbon Black MACT requires existing carbon black facilities to comply with the requirements by July 12, 2005. Columbian is currently required to be in compliance with the Carbon Black MACT for all new affected sources.

Columbian submitted a MACT extension request for the Carbon Black MACT on April 21, 2004. A second letter containing additional details concerning the schedule of the MACT upgrades, and discussion of these changes in the context of installation of controls was submitted on June 21, 2004. Follow up e-mails with updates to the project schedule were submitted on July 8, 2004 and July 9, 2004.

Section 63.1112(a)(4)(i)(B) requires that a request for an extension of compliance with a relevant standard be submitted in writing to the appropriate authority not later than 12 months before the affected source's compliance date. Recognizing Columbian's request for a compliance extension was submitted in a timely manner and reasonable efforts are being undertaken to obtain, install, and test necessary control equipment, DAQ approves Columbian's request for a compliance extension from the Carbon Black MACT until **April 17, 2006** for the following affected sources:



West Virginia Department
of Environmental Protection

"Promoting a healthy environment."

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NON CONFIDENTIAL

- Reactors 11 and 12 after venting through the Unit 1 Bag Collector.
- Reactors 21 and 22 after venting through the Unit 2 Bag Collector.
- Reactor 3 after venting to through the Unit 3 Bag Collector, and
- Reactor 4 after venting through the Unit 4 Bag Collector.

The proposed primary tail gas combustion control device will be a flare, which will be 300 feet tall, and comply with the flare design criteria of 40 CFR 63, Subpart SS (63.987). The facility also proposes to install a tail-gas fired boiler, which will meet the requirements of 40 CFR 63.982(a)(2) as a closed-vent and control device system. The boiler combustion chamber will be designed to reduce HAP emissions by at least 98 percent or to 20 parts per million (by volume). The existing tail-gas fired dryers (Dryers 11 and 12; 21 and 22; 31 and 32; and 41 and 42) will also be used to comply with HAP emission limits under Subpart YY.

This approval is subject to the following conditions:

1. During the period of this compliance extension, Columbian shall operate and maintain existing control equipment - existing Dryers combust part of the tail gas. In order to minimize emissions of hazardous air pollutants (HAPs) and criteria pollutants Columbian shall comply with the emission and operational limits in the Compliance Program specified in Consent Order CO-SIP-2000-3, including a the requirement that the sulfur content of the feedstock used in the reactor furnaces shall not exceed 2.5 % sulfur by weight.
2. During the period of this compliance extension, Columbian shall operate in compliance with all other applicable local, state, and federal regulations.
3. All activities required for installation of MACT control devices shall be completed by the dates listed in the attached project schedule.
4. Performance testing and flare compliance assessment shall be completed and submitted to DAQ within 180 days of the termination of this compliance extension. All compliance testing and report submittals must be completed no later than October 16, 2006.
5. Progress reports shall be submitted to the DAQ on a semi-annual basis, beginning with the first quarter of 2005 and continuing to the completion of this compliance extension. Reports shall be submitted to the DAQ no later than fifteen (15) days from the end of each quarter.
6. If Columbian is unable to meet any of the activity completion dates listed in the attached project schedule, DAQ shall be notified as soon as possible, but not to exceed seven (7) calendar days after becoming aware of delays. This notice must explain the delay and propose a revised completion date for affected activities.


Please be aware the Administrator may terminate an extension of compliance at an earlier date than designated if any specification regarding the dates by which steps

toward compliance are to be taken, or other applicable requirements to which the compliance extension applies (e.g., performance tests) are not being met.

7. If any activities required for compliance with 40 CFR 63, Subpart YY are not completed by the April 17, 2006 extension deadline, Columbian shall not be allowed to operate these units after this date unless and until the required upgrades have been completed or they are operated under a practically enforceable consent order issued by the agency.

If I can be of any assistance, or you have any questions, please contact Renu Chakrabarty or me at (304) 926-3647.

Sincerely,



John A. Benedict
Director

Enclosure: 1

cc: Roger Dancause, Senior Environmental Engineer, Columbian Chemicals Company
Judith Katz, Director, Air Protection Division, US EPA Region III
Chris Pilla, Chief, Air Enforcement Branch, US EPA Region III

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